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ABSTRACT

This book summarizes approximately 600 reports of reading research identified between July 1, 1989 and June 30, 1990. The research studies in the book are categorized into six areas: (1) summaries of reading research; (2) teacher preparation and practice; (3) sociology of reading; (4) physiology and psychology of reading; (5) the teaching of reading; and (6) reading of atypical learners. Studies in the book are subcategorized under each category and within any one subcategory appear a number of loosely related studies. A list of journals monitored and an author index conclude the book. (RS)

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Summary of Investigations Relating to Reading

July 1, 1989
to
June 30, 1990

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Editor

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Annual Summary of Investigations Relating to Reading

July 1, 1989 to June 30, 1990

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State University of New York at Buffalo
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Abbreviations Used in the Annual Summary, 1989-1990

Abbreviations have been used with certain terms and test names that appear frequently in reading research reports. The terms, test names, and abbreviations employed are listed below.

TERMS

ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
CA	Chronological Age
CAI	Computer Assisted Instruction
CRT	Cathode Ray Tube
DRA	Directed Reading Activity
DRTA	Directed Reading-Thinking Activity
EH	Emotionally Handicapped
EMR	Educable Mentally Retarded
ESL	English as a Second Language
GPA	Grade Point Average
IQ	Intelligence Quotient
LD	Learning Disabled
LVF	Left Visual Field
MA	Mental Age
MANOVA	Multivariate Analysis of Variance
RA	Reading Age
RD	Reading Disabled
RT	Reaction Time
RVF	Right Visual Field
SES	Socioeconomic Status
VF	Visual Field

TESTS

ACT	American College Test
CAT	California Achievement Test
CTBS	Comprehensive Tests of Basic Skills
DRP	Degrees of Reading Power
GMRT	Gates-MacGinitie Reading Tests
GORT	Gray Oral Reading Test
IRI	Informal Reading Inventory
ITBS	Iowa Test of Basic Skills
ITPA	Illinois Test of Psycholinguistic Abilities
MAT	Metropolitan Achievement Tests
MRT	Metropolitan Readiness Test
NARA	Neale Analysis of Reading Abilities
NDRT	Nelson-Denny Reading Test
PIAT	Peabody Individual Achievement Test
PMAT	Primary Mental Abilities Test
PPVT	Peabody Picture Vocabulary Test
RMI	Reading Miscue Inventory
RPM	Raven's Progressive Matrices
SAT	Stanford Achievement Tests

Schonell	Schonell Graded Word Reading Test
SDRT	Stanford Diagnostic Reading Test
SIT	Slosson Intelligence Test
Spache DRS	Spache Diagnostic Reading Scales
SRA	SRA Achievement Series
TORC	Test of Reading Comprehension
WAIS-R	Wechsler Adult Intelligence Scale-Revised
WISC-R	Wechsler Intelligence Scale for Children-Revised
WJPEB	Woodcock-Johnson Psycho-Educational Battery
WPPSI	Wechsler Preschool and Primary Scale of Intelligence
WRAT	Wide Range Achievement Test
WRMT	Woodcock Reading Mastery Test

A microfiche edition of this *Annual Summary of Investigations Relating to Reading* is available. Annotated citations are provided in author and subject sequences on eye-readable, 4 x 6 cards; the full-text documents are reproduced on 4 x 6 high-quality microfiche which utilizes an exclusive image indexer. Printed author and subject indexes are included, and a demonstration workshop is available to train staff and students in the use of the collection. For further information about the microfiche edition of this *Annual Summary* or any previous *Summary*, contact the Alvina Treut Burrows Institute, PO Box 49, Manhasset, NY 11030. Phone 516-869-8457.

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*Annual Summary of Investigations Relating to Reading July 1, 1989 to June 30, 1990**

SUMMARIZES approximately 600 reports of reading research identified between July 1, 1989, and June 30, 1990. The research studies are categorized into six major areas, five of which have been further subcategorized. As in previous years, the majority of studies reported were classified into the Physiology and Psychology of Reading area. The largest subdivisions within that category continue to be Comprehension Research and Factors Related to Reading Disability. The largest subcategory in the Sociology of Reading is concerned with the content analysis of printed materials. Under the Teaching of Reading category, the testing subcategory remains the largest. A listing of other general bibliographies of reading research appears as the first major category of the present summary.

Order of Studies Within Subcategories

STUDIES in the Annual Summary are subcategorized under five of the six major categories (Category 1 consists of general reviews only and is not subcategorized). Within any one subcategory will appear a number of loosely related studies. While all the research within one category falls under the same general rubric, the studies will vary markedly in emphasis, in the question being addressed, and/or in the focus. Thus, studies have been grouped within subcategories also. For example, under Factors Related to Reading Disability, those studies that address dyslexia appear together, while those that deal with strategies used by good and by poor readers would be placed in juxtaposition. The reader looking for research on one particular aspect of reading disabilities would then find them all in one spot rather than dispersed haphazardly throughout the subcategory as might be the case if they were listed alphabetically by author.

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*Diane Graham is the conscientious and competent doctoral student responsible for identifying the materials for inclusion. Ellen Friedland, another doctoral student, also assisted in identifying materials. Margaret Collins is the efficient secretary who keeps track of all the summary materials and reminds me that it's time to get things done. To those individuals, I am deeply indebted. In addition, thanks are due to our responsible, conscientious work-study student, Renee LaBounty. Primary financial support of the annual summary is provided by the International Reading Association. Supplementary funding is supplied by the Alvina Treut Burrows Institute.

I. Summaries of reading research

Bentley, Diana, & Raban, Bridie. (1989/1990). *British register of reading research*, No. 14 and *Reading research review*. Reading, Berkshire: University of Reading, Reading and Language Information Centre.

Abstracts completed research in Great Britain. The first section of the publication includes masters' theses and doctoral dissertations. The second part abstracts articles and includes full citation information.

Durst, Russel K., & Marshall, James D. (1989, December). Annotated bibliography of research in the teaching of English. *Research in the Teaching of English, 23*, 424-442.

Presents an annotated bibliography of research in the teaching of English under four main headings: (1) Writing, (2) Language, (3) Literature, and (4) Teacher Education. The first two are further subcategorized. Included are dissertation abstracts, ERIC documents, and journal articles.

Marshall, James D., & Durst, Russel K. (1990, May). Annotated bibliography of research in the teaching of English. *Research in the Teaching of English, 24*, 205-221.

Continues the compilation of an annotated bibliography of research in the teaching of English carried out in cooperation with the ERIC Clearinghouse on Reading and Communication Skills. Materials are categorized under the same four major categories noted in the previous abstract.

Raban, Bridie, & Geekie, Peter. (1989, November). Reading research in Great Britain in 1987. *Reading, 23*, 133-149.

Reviews studies appearing in British publications in 1987. Studies are categorized under 10 topics. Between 35 and 40 studies are cited.

Weintraub, Sam; Smith, Helen K.; Roser, Nancy L.; Moore, Walter J.; Jongsma, Kathleen S.; Jongsma, Eugene A.; & Doyle, Mary Anne E. (1990). In Sam Weintraub (Ed.), *Summary of investigations relating to reading, July 1, 1988 to June 30, 1989*. Newark, DE: International Reading Association.

Identifies and abstracts approximately 800 published research reports in reading. The literature is categorized under six major categories and further subcategorized under five of the major categories.

II. Teacher preparation and practice

II-1 Behavior, performance, knowledge, practices, effectiveness

Wendler, David; Samuels, S. Jay; & Moore, Vienna K. (1989, Fall). Comprehension instruction of award-winning teachers, teachers with master's degrees, and other teachers. *Reading Research Quarterly, 24*, 382-401.

Examines the time spent on comprehension instruction by three distinct groups of teachers. The subjects were 36 third, fourth, fifth, and sixth grade teachers in 20 schools located in 12 public school districts of a midwestern state. There were 12 teachers in each of three groups: (1) teachers who had received a teaching excellence award, (2) teachers with a master's degree, and (3) a control group of teachers. Each participant was observed teaching two entire basal reading lessons to the same group of students. In the first set of observations, teachers were not told the purpose of the study; in the second set, teachers were cued that their comprehension instruction was being observed and they should prepare exemplary comprehension instruction lessons. The percentage of instructional time allocated to prereading activities, to direct comprehension instruction, and to all comprehension instruction was measured. Repeated ANOVAS were used to test for differences between the groups. No significant differences were found among the three groups of teachers in the percentages of time spent on prereading activities or direct comprehension instruction. The award-winning teachers allocated more time than the control teachers to making assignments and to giving individual help with those assignments. When told that comprehension instruction was the focus of the observations, teachers did not increase the percentages of time for prereading activities or direct comprehension instruction. Instead, they significantly increased the percentages of time spent asking assessment questions (but not instructional questions), listening to pupils' answers, and giving corrective feedback.

SCHMITT, MARIBETH CASSIDY, & BAUMANN, JAMES F. (1990, Spring). Metacomprehension during basal reader instruction: Do teachers promote it? *Reading Research and Instruction, 29,* 1-13.

Examines the extent to which teachers foster pupils' metacomprehension abilities during basal reader instruction. Subjects were 10 volunteer elementary teachers from four school districts within a midsized midwestern community. The teachers were asked to audiotape all prereading, guided reading, and postreading activities and/or discussion pertaining to a single basal reader story as these were conducted with an average reading ability group. Transcription protocols of the audiotapes were analyzed for the presence of 12 different teaching behaviors that either controlled or promoted pupils' metacomprehension abilities. Scoring of the protocols included (1) frequency counts of the 12 teaching behaviors under the control or promotion classification, and (2) a holistic analysis of the richness of each metacomprehension teaching behavior under the control or promotion classification rated on a scale of 0 to 4. Simple descriptive statistics indicated teachers control rather than promote metacomprehension abilities. Holistic analysis of the protocols further confirmed teachers' infrequent promotion of metacomprehension abilities.

RUDDELL, ROBERT B., & HARRIS, PAULINE. (1989). A study of the relationship between influential teachers' prior knowledge and beliefs and teaching effectiveness: Developing higher order thinking in content areas. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 461-472). Chicago IL: National Reading Conference.

Describes insights into the relationship between teachers' instructional beliefs and performance in content area classrooms relative to strategies that promote higher order thinking. The sample consisted of 10 professors from different disciplines who were nominated for the university's Distinguished Teaching Award. The Teaching Characteristics Scale and The Classroom Interaction Patterns Scale were used to examine professors' perceptions of teaching characteristics and their effectiveness with classroom interactions. These self-rating scales were used to analyze and rate video-recordings of classroom performance to identify instructional strategies used in developing higher order thinking. High performance ratings and similarity between teachers' knowledge and teaching beliefs and their performance ratings appeared for both scales. Although variation in class size influenced the ability for direct interaction, teachers approached instruction as a learner-centered, problem solving process and mentally engaged students through raising questions and using examples relating to student experiences.

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Ruddell, Robert B., & Sperling, Melanie. (1988). Factors influencing the use of literacy research by the classroom teacher: Research review and new directions. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 319-329). Chicago, IL: National Reading Conference.

Reviews related research in order to describe what factors enhance or inhibit the dissemination of reading and writing research knowledge, and the implementation of said research by the classroom teacher. The discussion focuses specifically on three areas: (1) how and why literacy research knowledge is or is not compatible with that of the teacher, (2) teacher variables influencing the implementation of new knowledge, and (3) the effect of the organizational system on the teacher's acquisition and implementation of research knowledge. A research agenda that would facilitate the classroom teacher's successful use of literacy research is detailed.

Tefler, Richard J.; Jennings, Robert E.; & Mottley, Reed. (1989). What practitioners can tell reading researchers about content reading instruction. In Bernard L. Hayes & Kay Camperell (Eds.), *The yearbook of the American reading forum*, *9*, 11-21. Athens, GA: American Reading Forum.

Explores the connection between methodologies recommended in content reading courses and the reported practices of beginning secondary teachers. Subjects consisted of 30 teachers selected at random from a pool of recent (since 1985) secondary education graduates from one of three universities: one northern, one southern, one central. All had completed a content area reading methods course. Two-part interviews were conducted with each participant either in person or by phone. Initially, questions were posed to glean descriptions of teachers' content instruction practices and explanations of how they helped students to read more effectively. They were then asked to indicate how frequently they used 20 specific content strategies by responding on a 6-point, Likert-type scale. Finally, they were encouraged to explain their use of these strategies, including reasons for using/not using the specific activities. The resulting interview data (from the two separate parts) were categorized independently by two raters, and frequencies and percentages were tabulated. A high percentage of agreement was reported for the two raters (81% and 85% respectively for the two parts). The 20-item questionnaire was analyzed by computing mean scores for each item. Results indicated that most subjects saw their role as that of helping students acquire information, and they approached this objective through traditional teaching practices: lecture, discussion, and individual reading. While many reported not using specific activities recommended in content reading courses, most taught vocabulary before reading, worked on concept development before reading, taught study skills, and used supplementary materials. Teachers' reasons for using various strategies focused on how students learn (53%) and how the strategies fit with the subjects (40%). Their reasons for not using various practices centered on a perception that the practices didn't fit with the way they taught (59.9%). It appeared that the general understanding resulting from reading methods study seemed stronger than the understanding of specific strategies. Specific, individual activities were used or remembered less often than more general concepts about content reading.

Weissberg, Robert. (1988, Winter). A teacher's questioning style in three first grade reading groups. *New Mexico Journal of Reading*, *8*(2), 7-10.

Examines the questioning behavior one first grade teacher evidenced in her instruction with three reading groups to determine if she applied alternative questioning styles with groups of varying levels of proficiency. The study was conducted in a first grade classroom of 20 pupils in a suburban elementary school in southern New Mexico. Pupils were assigned to one of four leveled reading groups. Because the lowest group was functioning at a prereading level, it was not included in this study. The class was observed on four separate occasions, and each group was audiotaped once during storybook reading. Tapes were analyzed and question types were identified (display questions, closed referential questions, open referential questions) and classified. Display questions and closed referential questions were classified as low level questions; open referential questions, calling for extended pupil responses, were categorized as high level. Occurrences of each question type were counted for each group and percentages were calculated to permit cross-group comparisons. Results showed that the teacher used many more low-level than high-level questions with all three reading groups. Of the total questions asked by the teacher, the percentage of high-level questions increased with the ability level of the groups. Although the frequency of closed referential questions asked by the teacher declined as she moved to the higher level groups, her use of display questions did not decrease; a percentage increase was observed in this type of question. It was additionally noted that in all three groups questions accounted for less than half of all the teacher's talk/interactions with her pupils.

ALLEN, DIANE D., & SWEARINGEN, REBECCA A. (1989, Summer). Providing for capable readers: Beyond the basal manual. *Reading Horizons, 29*, 262-268.

Surveys beginning teachers and their supervising teachers to determine both their beliefs about the placement of capable readers for reading instruction and their actual placement practices. Initially, survey questionnaires were sent to 324 elementary teachers. The 112 (35%) respondents comprised the sample for this study. The survey instrument included questions dealing with the number of reading groups and their levels, influences on the placement of pupils for reading, the effect of placement on skill development, and beliefs about the placement of pupils either above or below grade level. Follow-up telephone interviews were conducted with 23 of the teachers. Results indicated that there were inconsistencies between teachers' stated beliefs about capable readers and stated placement practices. While 40% stated they primarily used informal assessment techniques to determine placements, only 20% indicated they would administer an informal assessment in responding to a case study scenario. Only 5% initially stated that their personal beliefs influenced their placement practices; however, 16% indicated that in a given situation their placement decisions were determined by personal beliefs and judgment. Participants in the telephone interviews were generally consistent with their mailed survey responses; however, 26% were not consistent when questioned about where they would place capable pupils. Most teachers said they would place a pupil above grade level only if it were determined that the pupil had mastered all of the skills in the basal, or was a gifted pupil, or tested above grade level. In general, teachers reported that allowing capable readers to skip levels of the basal reader would result in the readers missing essential skills.

TROYER, SANDRA J., & YOPP, HALLIE KAY. (1990, Spring). Kindergarten teachers' knowledge of emergent literacy concepts. *Reading Improvement, 27*, 34-40.

Reports findings of a questionnaire survey responded to by 165 kindergarten teachers on their understanding of the term "phonemic awareness" as well as other emergent literacy skills. The questionnaire was sent to 250 teachers randomly selected from 25 school districts in one California county. The three-part survey asked for demographic information (level of education, number of years teaching, whether they had worked with student teachers), level of knowledge on a 3-point scale of five current educational terms, and how important respondents considered it was for a child to achieve each of six skills in order to become an independent reader (rated on a 6-point scale). In general, less experienced teachers tended to be more familiar with the educational concepts. Just over half of the less experienced respondents claimed to be knowledgeable about the concept of phonemic awareness as opposed to 24% of those who had taught for 6 to 15 years and 32% of those who had taught for 16 to 30 years. Most indicated that their awareness of the term came from graduate courses. Respondents with master's degrees claimed a higher level of awareness of terms than did those with bachelor's degrees. All experience levels of teachers rated "command of a large vocabulary" as the most important of the literacy skills they were asked to rank.

THROOP, SARA. (1989/1990, Winter). High frequency words—elementary school teachers. *Journal of Reading Education, 15*(2), 16-26.

Surveys elementary teachers to determine which function words were considered most troublesome at each grade level. Elementary teachers in 40 Ohio school districts and teachers attending graduate classes in Florida, Michigan, and Minnesota universities were asked to select from the first 50 words in the American Heritage Word List the 10 words they considered most troublesome for their students. Over 800 responses from teachers at grade levels kindergarten through sixth grade were tallied and indicated that 4 words (were, there, their, which) were considered troublesome by teachers at all levels. The 10 words chosen most frequently at all levels comprised more than 82% of the first 10 choices at each of the individual levels. Seven additional words constituted the remainder (your, from, how, about, are, of, the).

GRIFFITH, PRISCILLA L., & KLESIUS, JANELL. (1990, Winter). A whole language flight plan: An interview with three teachers. *Reading Horizons, 30*(2), 5-14.

Details the attitudes and practices of three teachers interviewed to secure suggestions for initiating a whole language program. The three participating teachers were implementing whole language programs at kindergarten, first, and third grade levels in schools located in three central Florida counties. They represented a range of one to four years of experience in teaching whole language, and they worked with children from varying socioeconomic and ethnic backgrounds. The researchers reported that several common characteristics were observed in the three teachers: (1) willingness to continue learning (e.g., through professional reading, conferences, university courses), (2) attention to modeling reading and writing for children and creating a classroom environment conducive to risk-taking, (3) knowledge of the reading curriculum and ability to plan without reference to teachers' manuals, and (4) ability to motivate learners through the use of children's literature.

DICKENSON, DAVID, & KEEBLER, REBECCA. (1989). Variation in preschool teachers' styles of reading books. *Discourse Processes, 12*, 353-375.

Explores stylistic differences in the oral reading of books by three preschool teachers and delineates both teachers' and children's behaviors and speech events. The three teachers were experienced, full time instructors in a university-affiliated day care center. The 22 children in the room the teachers shared ranged in age from 3 years, 6 months to 4 years, 2 months. Oral reading data were collected by audiotaping the teachers in their natural setting as they read three or four different selections of children's literature to their class. Tapes were transcribed and analyzed to discover patterns of teacher-child exchanges and to describe the content of book discussions. Results of the qualitative analyses indicated that while the familiarity and complexity of books affected how books were read, the teachers displayed two distinct styles. Two teachers used an interactive style, engaging children in discussion of text as they read. The third teacher used a performance style, presenting stories in a skillful storytelling fashion with few breaks in the text for conversation or questions. The analyses of children's participation and teachers' styles suggested that different reading styles resulted in the construction of different speech events. The researchers suggested that because research in this area is so limited, instructional implications are not clear.

NEAL, KATHY S.; SCHAER, BARBARA B.; LEY, TERRY C.; & WRIGHT, JONE P. (1990). Predicting achievement in a teacher preparatory course of reading methods from the ACT and Teale-Lewis Reading Attitude scores. *Reading Psychology, 11*, 131-139.

Ascertains the predictability of academic achievement in a preservice reading methods course from scores on the American College Testing Program (ACT) and the Teale-Lewis Reading Attitude Scales. Two groups were used as subjects: a group of 48 undergraduate women in two sections of an elementary reading course, and 54 undergraduates (2 males and 52 females) in three sections of a reading course. The latter group served as a replication sample. Multiple regression analyses were used in treating the data. It was found that both instruments were effective predictors of grades in the course.

II-2 Beliefs/attitudes toward reading

KINZER, CHARLES K. (1989). Mental models and beliefs about classrooms and reading instruction: A comparison between preservice teachers, inservice teachers, and professors of education. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 489-499). Chicago, IL: National Reading Conference.

Compares preservice and inservice teachers' mental models (frames of reference) pertaining to classroom organization, procedures, and practices in reading instruction. Five subjects were selected from each of the four groups which comprised the comparative sample: (1) freshmen near completion of their first education course, (2) undergraduates who had successfully completed student teaching, (3) experienced teachers recommended as exemplar reading instructors, and (4) university professors responsible for professional and educational methods courses. Subjects participated in a structured interview which was videotaped and transcribed. Preservice teachers appeared to have a limited view of the classroom and of reading education using key descriptors such as books and homework. Teachers discussed reading from a procedural or methodological framework associating reading with cognitive processes and problem solving. Differences in the mental models among the four groups were delineated in terms of teaching procedures, classroom management and anticipated goals.

ROSS, PAMELA, & COLVIN-MURPHY, CAROLYN. (1989). The attitudes of teachers toward standardized tests and perceptions of the impact of these tests on curriculum. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 437-444). Chicago, IL: National Reading Conference.

Reports on the attitudes of 90 elementary teachers toward standardized tests. The sample was randomly selected from suburban and urban schools in California to represent low, middle, and high SES. The attitudinal measures included a semantic differential instrument and structured interviews. Responses to the 24 items on the attitude test ranged from 1 (negative) to 5 (positive). Interviews were recorded and transcribed. The attitude measure indicated that teachers projected neutral to mildly positive attitudes toward standardized tests for their pupils. Teachers of low SES and urban schools judged tests more harshly than teachers from high SES and suburban areas. Item tabulation indicated that 54% of the teachers thought the tests were biased, 44% thought the tests were not helpful to learning, and 76% perceived the tests as influencing the curriculum.

ZARRILLO, JAMES. (1989, October). Teachers' interpretations of literature-based reading. *Reading Teacher, 43*, 22-28.

Explores the various interpretations teachers have of literature-based instruction which was defined as instructional practices and activities using novels, informational books, short stories, plays, and poems. The sample included 15 teachers representing all elementary grade levels and teaching in public schools in southern California. Qualitative data were gathered through the use of ethnographic techniques. Administrators, teachers, and pupils were interviewed; instruction was observed; and samples of pupils' writing and drawing were collected. Data analysis involved the identification of patterns occurring across classrooms. Analyses of classroom practices revealed diversity among the teachers' philosophical stances toward reading. Most taught from the perspective that reading is a process that develops through use, that children learn to read by reading, that the language arts should be integrated in the elementary curriculum, and that literacy is more readily acquired when language is used to communicate messages. A second group of teachers considered that reading is a subject to be taught, that children learn to read by mastering a series of skills, that reading should occupy a separate time period from other language arts, and that literacy is most readily learned when language is presented to children in teachable components. A third group appeared to mix philosophies; their teaching included a combination of sequential skills lessons and whole language activities.

WING, LISA A. (1989, March). The influence of preschool teachers' beliefs on young children's conceptions of reading and writing. *Early Childhood Research Quarterly, 4*, 61-74.

Examines the relations among teachers' beliefs, instructional decisions, and preschool children's concepts of reading and writing. Two nursery schools (one Montessori and one constructivist) were selected for study. The criteria for selection were that the schools held differing views of reading and writing instruction and that those views were reflected in the schools' practices. Both schools were located in a middle- to upper-class urban area. Families of the children tended to be fairly well educated. Three sets of data were collected at each school. These consisted of director interviews regarding their orientations toward reading and writing instruction; observations of literacy materials, methods, and experiences; and interviews of 10 children at each school focusing on their concepts of reading and writing. The directors' responses were found to be highly consistent with the philosophies of their programs. The Montessori was described as having a mastery of specific skills/text-based orientation and the constructivist was found to have a holistic/reader-based orientation. A relationship was found between preschool orientations toward reading and writing instruction and children's ideas about reading and writing. The children in each school gave at least twice as many responses that reflected their school's orientation toward instruction. Children from the Montessori school were more likely to view reading as figuring out letters, and writing as forming letters and words. They tended to mention direct instruction, practicing, and copying when describing how people learn to read and write. Children from the constructivist school were more likely to view reading as reading stories or looking at books, and to view writing as making up stories or drawing. They tended to mention listening to others read and watching others write when describing how people learn to read and write.

O'BRIEN, DAVID G., & STEWART, ROGER A. (1990, June). Preservice teachers' perspectives on why every teacher is not a teacher of reading: A qualitative analysis. *Journal of Reading Behavior, 22*, 101-129.

Explores preservice teachers' resistance to content reading using a qualitative analysis of their perspectives. Subjects were 250 mostly preservice teachers who represented 12 content disciplines. All were enrolled in one of eight sections of a content reading course. Five types of qualitative data were collected: (1) precourse data on definitions and perceptions of content reading; (2) learning logs that included reactions to course readings, class lectures, discussions, and lab activities; (3) small group discussions related to issues and perceptions about reading and the value of specific strategies; (4) course evaluations; and (5) structured interviews conducted with 10 volunteers. Data were analyzed using constant comparative analysis. Both macro- and microanalyses of data are presented. Preservice teachers held misconceptions about content reading that were in keeping with those held by teachers in the field. These were termed surface misconceptions and were deemed relatively easy to counter. However, more complex and deep-seated misconceptions also were noted, and these were felt to be more resilient. These latter misconceptions appeared to be rooted in beliefs and traditions of school life relating to teachers' roles and allegiance to content disciplines.

SMITH, M. CECIL. (1989, Summer). Reading attitudes of preservice education majors. *Reading Horizons, 29*, 231-234.

Assesses the reading attitudes of preservice education majors to determine if a relationship existed between the students' reading attitudes and the number of reading methods and reading- and language-related courses completed. Forty-seven students enrolled in educational psychology courses at a major midwestern university comprised the sample. Subjects included 7 freshmen, 19 sophomores, 14 juniors, 6 seniors, and 1 graduate student. Eleven percent of these students had taken six or more reading-related courses, 21% had taken four or five courses, 49% had taken one to three such courses, and 19% had taken no reading- or language-related courses. All participants completed a 40-item reading attitude survey, the Adult Survey of Reading Attitudes (ASRA), by responding to statements concerned with their feelings about reading and their reading behaviors on a 5-point scale. Positive attitudes were identified by total scores of 150 and above; negative attitudes were indicated by scores of 100 or below. Results showed that the mean score for the ASRA equaled 140.55, reflecting a moderately positive attitude toward reading among this sample. There was no relationship between attitude and the number of reading- and language-related courses taken. There were, however, significant correlation coefficients noted for reading attitude and students' self-rating of their reading ability, and for attitude and overall GPA. A t-test revealed no differences on reading attitude between those students who had taken six or more reading- and language-related courses and those who had not taken any such courses.

SHELTON, MARIA M.; RAFFERTY, CATHLEEN D.; & ROSE, LEONIE M. (1990, Winter). The state of reading: What Michigan administrators know. *Michigan Reading Journal, 23*, 3-13.

Provides survey results of Michigan principals' knowledge of reading. Initially, 336 surveys were sent to elementary, middle, and junior high school principles representing rural and urban schools. Of the total surveyed, 47% replied and were included in the analysis. Questions focused on principals' course preparation, reading program features, reading philosophies, and administrative roles. Results showed that most respondents held master's degrees, had taken at least one undergraduate reading course, and indicated support of reading course work for administrative certification. Their programs included Chapter I teachers, paraprofessional aids, and support personnel for reading. They were knowledgeable about reading instruction, and the amount of reading preparation influenced their choices of preferred reading strategies. Additionally, elementary principals appeared more knowledgeable than their middle school/junior high counterparts. Respondents also indicated need for more statewide training for curricular changes.

WOOD, TERRY; COBB, PAUL; & YACKEL, ERNA. (1990, May). The contextual nature of teaching: Mathematics and reading instruction in one second-grade classroom. *Elementary School Journal, 90*, 497-513.

Examines one teachers' efforts to implement a cognitively based mathematics curriculum and the influence of these efforts on her beliefs and practices regarding the teaching of mathematics and reading. The volunteer teacher being studied had 15 years experience as a second grade teacher and was instructing 20 second graders. Audio and video recordings, ethnographic field notes, copies of children's work, and open ended interviews were collected over a one year period. A selection of these formed the data for analysis of children's mathematics and reading activities and/or discussions as well as teacher/student and student/student interactions. Analysis of the data showed dramatic changes in all the teacher's beliefs and practices with regard to the teaching of mathematics. However, these changes did not transfer to her teaching of reading.

GEE, THOMAS C., & RAKOW, STEVEN J. (1990, April). Guiding reading comprehension: Techniques English teachers value. *Clearing House, 63,* 341-344.

Surveys 1,000 English teachers as to their assessment of the value of 36 teaching practices that content reading specialists had rated as valuable. Teachers were randomly selected from the *English Journal* subscription list and were asked to rate the practices on a 5-point scale. Of the 36 practices, 15 were given mean ratings of 4.0 to 5.0 (highest). These practices were grouped into three categories: (1) choosing selections, (2) providing direct instruction and guiding discussion, and (3) encouraging student discussion. The other 21 practices also were ranked as valuable, with the lowest having a mean score of 3.35. There was strong agreement that prereading instruction, direct teaching of comprehension strategies, and student discussion were all important in developing comprehension.

LEVANDE, DAVID I. (1990, Spring). Teacher-reported factors influencing reading instruction. *Reading Improvement, 27,* 2-9.

Describes the factors that influence teacher beliefs and instructional practices concerning reading. A stratified sampling procedure resulted in the selection of 15 primary teachers from five schools. The teachers completed the Deford Theoretical Orientation to Reading Profile and were classified as having a subskills (n=9) or whole language (n=6) orientation. Individual interviews were conducted, recorded, and transcribed. Teachers with a subskills orientation stated that decisions to use specific programs and materials were made by the school administration. Teachers having a whole language orientation reported extensive staff development efforts designed to encourage but not mandate the use of this approach. Teachers from both theoretical perspectives identified their classroom experiences as having the greatest influence on their beliefs about reading.

LEVANDE, DAVID I. (1989, Winter). Theoretical orientation to reading and classroom practice. *Reading Improvement, 26,* 274-280.

Designs a study to investigate the extent to which primary grade teachers behave in ways consistent with their theoretical orientation to reading. Subjects were 79 K-3 teachers in five elementary schools. Teachers were asked to complete the DeFord Theoretical Orientation to Reading Profile (TORP), consisting of 28 items to be answered on a 5-point Likert scale. The items are placed into three categories: phonics, skills, and whole language. The score then gives a general indication of the respondent's theoretical orientation to reading. Of the 79 teachers receiving the questionnaire, 48 returned usable forms. A sample of 15, randomly selected and stratified to proportionally represent the orientations of the larger group, volunteered to participate and be observed while teaching. Observations were conducted using the Moss Classroom Analysis of Teachers' Theoretical Orientation to Reading. Teachers were observed for 30 minutes on three separate occasions. Percentages of allocated instructional time used for phonics, skills, whole language, and non instructional activities were compared with teachers' self-reported theoretical orientation on the TORP. Slightly over half of the observed teachers were teaching reading in a manner consistent with their TORP score. Three teachers with a reported TORP phonics orientation and five with a reported TORP skills orientation were found to be teaching in a manner inconsistent with their theoretical orientation to reading.

STICE, CAROLE, F.; BERTRAND, NANCY P.; LEUDER, DONALD C.; & DUNN, MARY B. (1989, Fall). Personality types and theoretical orientation to reading: An exploratory study. ***Reading Research and Instruction*, *29*,** 39-51.

Proposes to determine whether relationships exist among teachers' theoretical orientation to the reading process and selected psychological characteristics. Included were 145 undergraduate and graduate students enrolled in a reading or language arts methods course at two Southeastern universities. Subjects were given the DeFord Theoretical Orientation to the Reading Process (TORP), and a series of instruments designed to assess various psychological variables such as psychological types, preferred learning style, brain dominance, rigidity of thinking, and internal versus external locus of control. The TORP consists of 28 statements about reading. Responses place individuals on a continuum from phonic decoding to traditional skills to whole language. When analyzed on the TORP, 18 subjects rated themselves as whole language, 94 as skills/traditional, and 33 as phonics/decoding. Relationships were found among certain personality characteristics and certain theoretical orientations. Phonics teachers tended to be judgers, while whole language teachers tended to be perceivers. On the learning styles measure, whole language teachers tended toward the active experimenters type while skills teachers tended toward the concrete experiencers.

II-3 Preservice/inservice preparation

COMAS, JACQUELINE C., & FARR, ROGER. (1989, Summer). Training preservice teachers to analyze and evaluate textbooks. *Book Research Quarterly*, *5*, 5-15.

Asks whether preservice teachers can be taught to write and apply evaluation criteria to be used in rating basal readers. The textbook evaluation ratings of two groups of students were compared, one using a checklist with examples of the criteria and a second group using only the criteria with no attempt to operationalize them. Subjects were 96 students enrolled in three sections of a reading methods course. Two sections served as experimentals and one served as a control group. A four-week unit within the reading methods classes was used to teach students to evaluate materials. Classes were randomly assigned to serve as either experimental or control. All classes were given checklists to aid in identifying criteria for evaluating basal readers. Control students were told to develop checklists to guide their evaluation of the basals, using the sample checklists to aid them. Experimentals were asked to review and discuss the criteria used in the checklists and to identify examples of good and bad features of basals. Students applied their evaluation instruments to 50 reading skill lesson plans and 50 workbook activities. A final assessment was conducted four weeks later when students were asked to again rate 20 reading skill lesson plans and 20 workbook activities. Experimental and control groups were compared with ANOVA techniques to determine whether their means on the final assessment instrument differed significantly. Experimentals were found to be more consistent in their evaluations than were controls.

ANDERS, PATRICIA L., & GALLEGO, MARGARET A. (1989). Adoption of theoretically linked vocabulary-reading comprehension practices. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 481-487). Chicago, IL: National Reading Conference.

Highlights the results from the second year of a three-year study and asks whether a staff development program can adequately teach classroom teachers how to use particular vocabulary instructional practices associated with the knowledge hypothesis. Three types of graphic organizers using vocabulary from content area materials were used as the practices focused on the staff development program: semantic mapping, semantic feature analysis, and semantic syntactic feature analysis (matrix plus cloze sentences). Seven elementary teachers of LD bilingual students participated in the staff training. During the month between the two staff development days, teachers were videotaped as they conducted practice sessions with their classes. Teachers' beliefs about teaching vocabulary and reading comprehension were examined using a survey and structured interviews at the end of the training period. Feedback from the videotaped practice lessons indicated that teachers had learned to use the practices described. On the survey, teachers evaluated these practices higher than other methods associated with the access or instrumental hypotheses.

Daves, Karen S.; Morton, Johnnye L.; & Grace, Marsha. (1990, Winter). Novice teachers: Do they use what we teach them? *Reading Horizons, 30*(2), 25-34.

Surveys beginning elementary classroom teachers to determine the relationship between the reading methods cultivated in preservice training and the instructional practices applied by them in the classroom. A researcher-designed questionnaire was sent to 110 new teachers who had graduated during the 1986-1987 academic year from one of three universities in Colorado, New Mexico, or Texas. Of 52 surveys returned, 45 were complete and used for the analysis. Questions required the rank ordering of instructional alternatives in response to nine open-ended sentence stems. Tabulated results of the rank orderings were reported. Results indicated that the five top instructional practices that teachers associated with undergraduate reading courses ranked as follows: (1) language experience; (2) writing activities; (3) children's literature, used instructionally; (4) learning centers; and (5) free, silent reading. The five top instructional practices that teachers perceived to be encouraged by school administrators ranked: (1) basal readers; (2) workbooks/skillbooks; (3) writing activities, (4) language experience; and (5) children's literature, used instructionally. The majority of teachers indicated that much of their reading instruction time was spent using basal readers and workbooks/skillbooks. They further indicated that they would place more emphasis on language experience, writing activities, and children's literature to improve their teaching methods. In order to make adjustments in their practices, the teachers indicated the need for support from the following sources, presented in ranked order: (1) principals, (2) fellow teachers, (3) resources for ideas, (4) parents and additional materials, (5) the curriculum director, (6) the reading consultant, (7) additional services and the school board, (8) graduate courses in reading, and (9) librarians.

Hollingsworth, Sandra. (1989, Summer). Prior beliefs and cognitive change in learning to teach. *American Educational Research Journal, 26,* 160-189.

Documents changes in preservice teachers' knowledge and beliefs about reading instruction during their graduate year of teacher preparation in a five year program. The sample comprised 14 subjects selected from one university's total class of 53 to represent a wide range of incoming views about teaching and reading instruction and assigned to a range of levels, primary through high school. Changes in preprogram beliefs about education, teaching, and learning were traced as subjects acquired knowledge of how to manage, assess, and facilitate students' learning from text. Baseline data were secured by preprogram interviews and first week observations of subjects. Data sources used to triangulate the data and describe change and possible program influences included interviews, observations, supervisors' evaluations, and subjects' journals. These data were collected continuously through the year. Reading course instructors and cooperating teachers were interviewed periodically. The qualitative data were analyzed to determine: (1) the patterns of intellectual change from preservice teacher to beginning classroom teacher; (2) the personal, program, and contextual influences or constraints on that change; (3) the role of the cooperating teacher and university supervisor in supporting intellectual change; and (4) the nature of prior beliefs on identity maintenance while learning. Findings suggested the importance of understanding preservice teachers' prior beliefs to inform supervision and university course design, the value of cognitive dissonance in practice teaching contexts, the need to routinize classroom management knowledge before attending to subject-specific pedagogy, and the importance of the academic task as part of the teaching knowledge base.

HERRMANN, BETH A. (1989). The evolution of preservice teachers' knowledge structures. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 511-519). Chicago, IL: National Reading Conference.

Seeks to determine whether teachers' knowledge structures become more global and complex over time and how teacher education influences that process. Three preservice teachers in elementary and early childhood education were followed through a teacher effectiveness course and various methods courses. An ordered tree procedure was used to illustrate developing knowledge structures at the beginning, middle, and end of each course. This technique allowed subjects to display how concepts included in their knowledge structures are networked into relationships. Twenty-one ordered trees were examined for the extensiveness of concepts and the logical relationships established (coherence). Pattern changes indicated higher scores on extensiveness of concepts included at the end of the teacher effectiveness course than at the end of the reading methods course. The reverse pattern emerged when examining for coherence; lower coherence scores were obtained at the end of the teacher effectiveness course than for either the practicum or the reading methods course. Preservice teachers' knowledge structures tend to become less extensive but more coherent over time.

KLESIUS, JANELL; ZIELONKA, PAULA; & LAFRAMBOISE, KATHRYN. (1990, Spring). Training preservice teachers to effectively implement the directed reading activity: Positive and negative influences. *Journal of Reading Education, 15*, 40-50.

Seeks to determine how effectively preservice teachers use the directed reading activity (DRA) after training, which components of the DRA are most difficult for interns to implement, and what factors might have either positive or negative influences on the interns' implementation of the strategy. Participants were 18 interns randomly selected from a pool of 66 students beginning their program in teacher education. Training procedures included presentation of the steps of the DRA, videotaped modeling with children, and simulated practice with feedback. Data collection procedures were effected through observations of DRA lessons, surveys of subjects to ascertain factors that might have influenced their performance, and interviews to clarify students' observations of DRA procedures used by supervising teachers. Lesson observations were rated by assigning scores, ranging from 0 to 4, to each of five components of the DRA: vocabulary instruction, background and motivation, guided silent reading, questioning, and feedback. Frequency distributions were computed for scores of each DRA component, for survey questions, and for responses recorded in interviews. Results suggested that some interns applied the DRA effectively following initial training; however, others needed more modeling and simulated practice to be successful. Vocabulary instruction appeared to be applied most successfully (scored highest); the feedback component was considered most difficult (scored lowest). Interview data suggested that assigning interns to work with teachers who did not implement instructional strategies consistent with those recommended in the methods course may have had a negative influence on the interns' performance. It also appeared that for practice of a teaching strategy to be effective, feedback must be direct and clear.

GIPE, JOAN P.; DUFFY, CHARLES, A.; & RICHARDS, JANET C. (1989, Fall). A comparison of two types of early field experiences. *Reading Improvement, 26*, 254-265.

Examines the impact of two alternative, early field placements on prospective teachers' attitudes, beliefs, and perceptions of (1) teaching reading and language arts, and (2) teaching dialect-speaking, low SES children located in an innercity school setting. Subjects were 52 female elementary education majors enrolled in the reading and language arts methods courses of one institution. The control group's (n = 40) program included methods courses on campus and a field experience of weekly, one hour visits to suburban schools for 10 weeks. Each student was assigned a small group of pupils (usually five to eight) to teach one hour lessons (five reading, five language arts). Experimental group students (n = 12) were assigned to one innercity school where they received methods instruction and fulfilled field experience assignments, an immersion training design. This allowed students to spend six hours a week in the school. Four hours were spent teaching one hour lessons to small groups of children from four different classrooms, and the remaining two hours were devoted to course lectures and demonstration lessons. These were presented by one university instructor and one of the school's teachers. At the end of the semester all subjects were administered three survey instruments. These included a researcher-designed questionnaire to assess perceived helpfulness of field based experiences, the Theoretical Orientation to Reading Profile to determine students' theoretical orientation for reading instruction, and the Language Attitude Scale to determine attitudes toward dialect speakers. These data were analyzed using t-test procedures. Results indicated significant differences between experimental and control groups on all measures and confirmed the advantages of an immersion-type field experience. Specifically, the school-based plan of field experiences and methods instruction broadened the educational experience, providing subjects greater insight into the socioeconomic, cultural, and bureaucratic variables which have an impact on the teaching experience. In addition, the experimental subjects were more holistic in their perspective of reading instruction, were more accepting of Black English, and recognized Black English as a systematic language variation.

II-4 Roles

RUDE, ROBERT T. (1989, December). A survey of reading teachers in southeastern New England. *Rhode Island Reading Review, 7,* 5-11.

Interviews 25 reading specialists representing 18 separate school districts in southeastern New England to detail job responsibilities, student selection and exit processes, caseloads, teaching schedules, program budgets, materials selection, and program funding sources. Individual, one hour interviews were conducted by reading-specialists-in-training. Specialists interviewed held a master's degree in education, had 9.62 mean years of classroom teaching experience, and averaged 10.5 years of experience as a reading specialist. All comments were organized to determine the frequency of corresponding responses reported in percentages. Results revealed that for this group of reading specialists (1) common funding sources included Chapter I and local district funds; (2) student selection and exiting most often were based on norm-referenced reading tests (MAT, ITBS, SAT, CTBS); (3) caseloads averaged 44 pupils; (4) instructional sessions were planned three or four times a week for 30 to 45 minutes; and (5) budgets of $200 to $500 were allocated yearly for materials. Their major frustrations included working with reluctant classroom teachers and having to deal with factors beyond the jurisdiction of the school (e.g., parents and home environments). Finally, while they reported satisfaction with their academic training, they felt least prepared for consultant and administrative duties.

DOAN, MARIE F., & DOAN, ROBERT. (1989). An investigation of principals' and teachers' perceptions of the elementary school reading program. *Mississippi Reading Journal, 2*(1), 28-32.

Seeks to identify similarities and differences between principles' and teachers' perceptions of the elementary reading program. The sample included principals from 51 public schools in Mobile County, Alabama, and 254 primary and elementary teachers from 15 schools selected randomly from all public schools in the same county. Participants completed one questionnaire surveying perceptions of: (1) principals' involvement in reading programs, (2) classroom reading practices, (3) frequency of the use of various materials, (4) basal reading materials, and (5) staff development needs. Responses were indicated on a Likert scale. Mean scores were calculated separately for the three participating groups (principals, primary teachers, elementary teachers) and were examined to evaluate the degree of correspondence between perceptions of principals and teachers. In most cases, perceptions were reported to be similar. Differences between principals and teachers were noted with regard to perceptions of the principals' involvement in the reading program, the primary teachers' classroom reading practices, and staff development needs.

BERLINER, DAVID C. (1985). The executive functions of teaching. In Jean Osborn, Paul T. Wilson & Richard C. Anderson (Eds.), ***Reading education: Foundations for a literate America*** (pp. 87-107). Lexington, MA: D.C. Heath.

Examines the relationship between management practice and education and provides a description of how teachers function as executives. Parallels between management theory and educational practice were delineated and resulting implications for training were detailed. Suggestions for developing executive skills in educators included training teachers how to make decisions in dynamic environments, develop long range and short term plans, keep records, supervise others, manipulate bureaucracies, survive in organizational settings, evaluate performance, manage by objectives, and manage time. The teacher as executive metaphor was presented as a positive, considerate descriptor that could result in attainment of the prestige and pay accorded other skilled executives in our society.

II-5 Evaluation of programs and materials

BREZNITA, ZVIA. (1989, Summer). Teacher evaluation of pupils' reading performance: Criteria used for assessment. ***Reading Improvement, 26,*** 174-180.

Examines the relevance of three distinct reading skill components (comprehension, decoding skill, reading rate) in teachers' assessments of first grade readers. Ten teachers evaluated 310 first grade pupils from a middle-class population in an urban center in Israel using a researcher-designed scale. The teachers rated both overall reading performance and performance on the three discrete skills. Pupils were also administered the Comprehension Test for Grades 1 and 2, a standardized test written in Hebrew. The 10 teachers and an additional 50 teachers from the same region completed a questionnaire surveying their perceptions of the relative importance of the three skills in teaching first grade reading and their reported practices in regard to rate. Stepwise multiple regression techniques were performed to discern the relative contribution of the teachers' ratings of the three component skills to their ratings of overall performance. Results indicated that teachers' evaluations of rate contributed most to their assessment of overall performance, and evaluations of decoding ability followed closely. Teachers' appraisals of comprehension skills were significantly less likely to contribute to their overall evaluation of reading performance. Pearson coefficients of correlation of pupils' actual performance with the teachers' evaluations of their skills revealed that the coefficient was highest for reading rate (r = .52) followed by that for decoding (r = .41) and comprehension (r = .18). Contrasting results were found in the questionnaire data. All 60 teachers indicated that decoding and comprehension were emphasized during instruction and were the only skills considered when assessing pupils' reading performance.

Watson, Richard L.; Bridge, Tamara; Milner, Deborah; & Persinger, James D. (1990, Spring). Kansas teacher opinions of the Kansas Minimum Competency Tests, Spring 1989 survey. *Kansas Journal of Reading, 6*, 31-33.

Seeks teachers' opinions of their state's minimum competency tests. To identify participants, 50 elementary schools were selected at random from the Kansas Association of School Administrators' district organizational structure. The principals of these schools were sent sufficient return questionnaire postcards for 50% of their teaching staffs and were requested to select teachers for participation in an unbiased manner. The total number of cards sent was 381, and of these, 175 were returned. The questionnaire consisted of four statements presented with a Likert 5-point response scale to indicate agreement/disagreement. Results showed that the responding teachers felt the competency tests had eroded the public understanding of reading quality, had not improved reading instruction, had not improved students' reading, and should be discontinued.

Meyers, Joel; Gelzheiser, Lynn; Yelich, Glenn; & Gallagher, Maureen. (1990, May). Classroom, remedial, and resource teachers' views of pullout programs. *Elementary School Journal, 90*, 533-545.

Explores the views of teachers regarding the advantages and disadvantages of pullout models, the types of pupils benefiting from such programs, experience with alternatives to pullout programs, and recommendations for improvement. Forty regular classroom teachers, 9 remedial reading teachers, and 8 resource room teachers were selected from six elementary schools to serve as a sample. The teachers were interviewed and their responses coded using a basic coding system devised by the researcher. The advantage of pullout programs identified the most by teachers was that instruction was both structured and intense. The most commonly agreed on disadvantage was that pupils miss much of the regular academic curriculum when they are pulled out. Other disadvantages noted were difficulties with scheduling, with communication, and with the number of children identified. A moderate percentage of all teachers interviewed indicated that pullout programs were effective for motivated pupils with mild handicaps who had good organizational skills and positive attitudes. Distracted pupils were identified as those who would not benefit from such a program. Half of the teachers indicated they had no experience with alternate programs. The most frequently cited alternative described the remediation taking place within the regular classroom by an outside specialist. This pull-in alternative and the developing of collaborative scheduling efforts were listed as suggestions for program improvement.

III. Sociology of reading

III-1 Role and use of mass media

Reinking, David, & Wu, Jen-Huey. (1990, Winter). Reexamining the research on television and reading. *Reading Research and Instruction, 29*, 30-43.

Updates earlier reviews of research investigating the relation between television viewing and reading by placing an emphasis on research completed in the 1980s. Researchers have examined this relation in greater depth by using a wider range of variables, more powerful statistical analysis, and, in some instances, larger and more diverse sample sizes. Large data bases containing relevant information have been made available for secondary analyses. It was concluded that moderate levels of television viewing do not affect reading achievement adversely but may benefit the learner in background knowledge, interest, and vocabulary.

This relation was considered more complex than reflected in the methods and findings of earlier studies.

Kepplinger, Hans Mathias. (1989). The changing functions of the mass media: A historical perspective. *Gazette, 44*, 177-189.

Traces the relationship of mass media and political institutions from the early seventeenth century. The personal and functional separation of political institutions and mass media, originally organized hierarchically and then competitively, has been largely abandoned for functional interdependence. Originally located outside the political system, news media now have taken a place within the political system. Becoming a political power that no longer reacts but acts, the mass media increasingly determine the limits of what is politically feasible. Research from different countries was reviewed for this report.

Fair, Jo Ellen. (1989). 29 years of theory and research on media and development: The dominant paradigm impact. *Gazette, 44*(2), 129-150.

Reviews how researchers in 224 studies examined the role of the media (television, radio, newspapers, magazines) in developing countries as agents of behavioral, attitude, and knowledge changes. The purpose of this study was to compare research conducted during the modernization or dominant paradigm (1976-1986) with that preceding the paradigm debate (1958-1975). The specific aspects studied included theoretical frameworks researchers used to explore media impact, types of methods used, and assumptions made about the media's impact on development and the relevance of media content to audiences.

Hartman, Paul; Patil, B.R.; & Dighe, Anita. (1989). *The mass media and village life: An Indian study.* Newbury Park, CA: Sage.

Conducts fieldwork research in the Indian states of Kerala, Andhra Pradesh, and West Bengal to study how mass communication fits into the pattern of Indian village society. The work was conducted in three phases. Phase 1 consisted of an initial period of participant observation in a village in a selected area of each state, with some of the major aspects of social, economic, and cultural life observed. Informal individual and group interviews were conducted to elicit information on village life in general. Case histories of the school and other village institutions were collected. In Phase 2, a random sampling survey of 1,000 individuals in eight villages in each of two of the study regions was conducted to obtain results broadly representative of each area. Phase 3 consisted of an extended period of participant observation of six months in one village within each of the three regions. It was concluded that village society is highly differentiated in terms of access to resources and by caste and other divisions, and that it is characterized by competition for resources among different interest groups. Information provided by the media is most likely to reach higher status and better educated members of the community and spread from them to others. Examples found included the literate villager reading a newspaper aloud to others. However, informed persons tended to be selective in what they passed on and to whom; thus certain information acquired from the media may be passed on to only a select few. The authors argue that the two-step flow of information theory held by many practitioners is overly mechanistic and rests on the assumption that the communication audience is relatively passive, rather than being selective in both passing on and reinterpreting the information.

Stroman, Carolyn A., & Seltzer, Richard. (1989, Winter). Media use and knowledge of AIDS. *Journalism Quarterly, 66*, 881-887.

Explores differences in knowledge about and attitudes toward AIDS between people who rely on newspapers and those who rely on television for news. Telephone interviews were conducted with 180 persons over the age of 18 who resided in Washington, DC. Included were measures of knowledge of and attitudes towards AIDS, personal experiences with AIDS, and media use. Media questions were cross-tabulated with those on knowledge, attitudes, and experiences with AIDS (the dependent variables). There was a tendency for frequent newspaper readers to have correct information about AIDS and for people who watched television frequently to have false information. Frequent television viewers tended to have more repressive attitudes toward AIDS, but more of these differences disappeared after controlling for education.

ANDREYENKOV, VLADIMIR; ROBINSON, JOHN P.; & POPOV, NIKOLAI. (1989, Spring). News media use and adolescents' information about nuclear issues: A Soviet-American comparison. *Journal of Communication, 39,* 95-104.

Compares results of a survey concerning nuclear war topics among adolescents in the United States and in the Soviet Union. The survey included two types of questions: general questions about nuclear issues and those about diplomatic and technical issues. Subjects also estimated their exposure to daily TV news programs and newspapers. In the United States 3,372 students from grades 7 to 12 completed the survey; in the Soviet Union, 2,263 students did so. It was found that Soviet students watch more television, read more newspapers, and are better informed about nuclear issues than American students. Subjects in both countries perceived TV to be their most likely source of information. However, the results of a Multiple Classification Analysis program suggest that although TV plays a statistically significant role in teenagers' information about nuclear issues, newspapers are almost as important as a source for information. The pattern of factors related to high information is similar for teens in both countries.

ABBOTT, ERIC A., & BRASSFIELD, LYNN T. (1989, Winter). Comparing decisions on releases by TV and newspaper gatekeepers. *Journalism Quarterly, 66,* 853-856.

Compares the methods used by newspapers and television in selecting or rejecting news releases. The case study approach used included both quantitative and qualitative data-gathering components. Interviews were conducted at eight daily newspapers and five commercial television stations. On the day they were interviewed, subjects went through the news releases, made decisions about them, and gave reasons for their decisions. 341 releases were considered. Representatives for both television and newspapers identified local news as the most important single reason to save or reject a news release; impact/interest and timeliness were two other reasons given for acceptance of news releases. Visual elements were cited more frequently by those in television than those in newspapers.

HENDRICKSON, LAURA. (1988, Winter). Media reliance and complexity of perspective of international relations. *Journalism Quarterly, 66,* 876-880, 901.

Examines the relation among media reliance, media exposure to international news, and complexity of perspective of international relations. Data were derived from a telephone survey of 200 adults in Austin, Texas. Measures were prepared for each of the foregoing variables. Results indicate that media reliance may be a contributing factor in determining the degree of complexity of an individual's perspective of international relations. A weak but statistically positive coefficient of correlation was found between newspaper reliance and complexity of perspective of international relations. A weak, negative coefficient was found between TV reliance and complexity. The results of multiple regression analyses involving media reliance, media exposure, and complexity of perspective showed that television reliance contributed more to a negative relation than did television exposure. Newspaper reliance was not as strong a contributor to complexity as newspaper exposure. Pearson correlation coefficients showed newspaper reliance to be positively related to a tendency to be exposed to international news in both media while television reliance was negatively related to such a tendency.

McDonald, Daniel G. (1990, Spring). Media orientation and television news viewing. *Journalism Quarterly, 67,* 11-20.

Uses factor analysis to compare the surveillance role (readers/viewers need to know about community and world events) with communication utility (providing readers/viewers with information to use in social interaction with one another). Interviews conducted with 364 households included data on individuals' use of mass media, interpersonal communication patterns, perceptions of current issues, and feelings about the community. A path model using factor analysis results was conducted. Those who seek hard news on television also seek it in newspapers. News information-seeking behavior held across television and newspapers. Television news involvement was unrelated to the viewing of TV entertainment programs or reading of "soft" news.

Newhagen, John, & Nass, Clifford. (1989, Summer). Differential criteria for evaluating credibility of newspapers and TV news. *Journalism Quarterly, 66,* 277-284.

Compares criteria people use when judging credibility of newspaper and television news. Data for this study were derived from a national survey of adults in the United States who completed a written questionnaire after being interviewed by telephone (N=985). Two credibility scales were constructed, one for newspapers and one for television, using the same questions. The results of factor analysis and the Pearson correlation revealed that criteria used to judge credibility of the two media were different. The results suggested that many subjects based their perception of credibility of newspapers on their performance as institutions while they based their perception of credibility of television news on the performance of on-camera personalities.

Lasorsa, Dominic L., & Reese, Stephen D. (1990, Spring). News source use in the crash of 1987: A study of four national media. *Journalism Quarterly, 67,* 60-71.

Compares the coverage and the sources for the 1987 stock market crash during two months by CBS Evening News, *Newsweek, New York Times,* and *Wall Street Journal.* Causes and effects, if given, were coded; sources were categorized according to one of seven organizational affiliations, as business. Causes and effects each were placed into one of 14 categories. In the 167 stories analyzed, 1,022 sources were used with newspapers using more sources than broadcasts. Government sources mentioned causes of the crash (most often the national debt) while business and lobbyist sources focused more on effects. Print media favored Wall Street sources while CBS favored government sources. The use of different sources resulted in different slants.

Latimer, Margaret A. (1989, Summer). Legislators' advertising messages in seven state campaigns in 1986. *Journalism Quarterly, 66,* 338-346, 527.

Investigates the content of advertisements by political candidates for state senates and for Congress to determine what is available to reflect/shape public opinion. Newspaper advertisements (210) were obtained from seven state clipping services for 381 candidates and were analyzed for content and style. Policy-oriented subject matter and personal information were coded on an ordinal scale (1-5) with effectiveness being evaluated (1-5). Frequency of entries in papers and the number of different ad copies were recorded. Election data were obtained from the different secretaries of state. An opinion survey enlisted the help of 96 winning candidates from the 1986 elections concerning media strategies and information on the content of candidates' live media advertising. Numerous findings were reported. It was concluded that because a portion of advertisements were almost wholly personal, the messages from politicians tended to reflect images of offices rather than action.

PASADEOS, YORGO, (1990, Spring). Perceived informativeness of and irritation with local advertising. *Journalism Quarterly, 67*, 35-39.

Determines what 407 Alabama mall shoppers thought of the informativeness of retail advertising in newspapers, radio, and television and the relation between their perceived irritation with advertising and its informativeness. A questionnaire was self-administered by shoppers in three malls during a three-week period. They rated on 7-point scales how informative and how irritating advertisements were in each medium, described their media exposure, and answered demographic questions. Newspaper ads were perceived significantly more informative than radio ads, the latter being more informative than those of television. Perceived informativeness of local advertising was related to media exposure. Subjects tended to be more irritated by newspaper than by radio and television advertising. More irritation was expressed by older and financially able subjects than by the others.

WILLIAMS, GILBERT A. (1989, Winter). Enticing viewers: Sex and violence in *TV Guide* program advertisements. *Journalism Quarterly, 66*, 970-973.

Relates *TV Guide* advertisements depicting sex and violence to ratings of network television programs. A sample of 625 program advertisements in the *Guide* from 1980 to 1985 was coded for the presence of sex and/or violence, program type, time period, size, and social structure. Ratings for 34 prime time series were obtained from Nielsen Media Research. Programs were coded as crime, professional, action/adventure, general drama, western, situation comedy, variety, and other. Forty-three percent of the ads had either sexual or violent referents. Photographs accompanied more than 92% of the ads. The data suggested that sex and violence in program advertising had a positive impact on the program's rating as 22 of the 34 prime time series used sex and violence referents in their ads.

WANTA, WAYNE; STEPHENSON, MARY ANN; TURK, JUDY VANSLYKE; & MCCOMBS, MAXWELL E. (1989, Autumn). How President's State of the Union talk influenced news media agendas. *Journalism Quarterly, 66*, 537-541.

Tests the influence of Presidential State of the Union addresses on subsequent media coverage. Nearly identical designs were used in each of the four studies. Three involved Nixon's, Carter's, and Reagan's second State of the Union speech; the fourth study examined Reagan's 1985 address, his fifth. Content analysis was used to determine issues presented which were rank ordered. All news stories on these issues were identified in the *Washington Post, New York Times*, and evening news broadcasts of ABC, CBS, and NBC for the two months surrounding the addresses and were content analyzed. Press coverage prior to the talks was used as a control. Nixon's agenda of issues correlated more highly with postaddress coverage than with preaddress coverage. The findings were reversed for Carter. The correlation suggested that Reagan's 1982 address influenced newspaper coverage but not television. His 1985 address presented results similar to those for Carter.

III-2 Content analysis of printed materials

MOORE, DAVID W.; ALVERMANN, DONNA E.; & O'KEEFE, KATHLEEN H. (1990, April/June). The discussion practices recommended in postprimary reading methods textbooks before and after 1970. *Reading Psychology, 11*, 115-130.

Describes discussion practices recommended in postprimary reading methods textbooks published in the United States before and after 1970. The 37 topics identified as being related to discussion were grouped into three categories (functions of textbooks, functions of questions, roles of teachers and students) and used in analyzing 15 textbooks. In both time periods the authorities favored varied materials as stimuli for discussions, questions that required interpretations, and questions produced by students as well as by teachers. Pre-1970 authors granted the text more status as the arbiter of ideas and made fewer recommendations for implementing discussions than the later authors; neither produced detailed plans.

LESESNE, TERI S., & MOUNTAIN, LEE. (1990, Winter). Biographies in the basals: Which people are featured? *Reading Horizons, 30*(2), 57-65.

Identifies biographical selections in basal readers, grades 1-8, published by five companies. Information recorded for each selection included grade level, title of selection, author, topic descriptors, gender and race of main character, and setting. Of the 125 people appearing, only 2 were found in three of the five series. The majority (83%) of the biographical selections were single appearances. Book-connected people (authors, illustrators) represented over a third of the selections. Of these biographies, 57% were about males; 43% females; 58% Caucasians; 42% other ethnic groups; 41% living; 59% deceased.

CHESTER, ROBERT D. (1989, Winter). Picture this: Portrayal of visible minorities in basal readers. *Reading-Canada-Lecture, 7,* 213-217.

Assesses the frequency of minority characters in six basal reading series, compares the results with those of a 1973 survey, and with students' ethnic origins in a large high school district in Canada. The 5,352 people illustrated in 910 stories were classified as Caucasions, Blacks, Asians, or native North Americans. When the two surveys were compared, Caucasians constituted 75-80% of the characters in both surveys. Blacks continued to be the most frequently pictured minority. The frequency of native North Americans still averages 3-9%. Asians continue to be the least often pictured. A disparity was found between the ethnic mixes in the schools and characters represented in basals.

DAS, AJIT K. (1988, July). Modernization themes in primary textbooks. *Indian Educational Review, 23,* 1-17.

Identifies themes of modernization in a content analysis of four general science, three social studies, and two Hindi textbooks used in schools in India. The purpose of the analysis was to determine the extent to which these books implemented the recommendations of the Education Commission in regard to making education an instrument of national development. The content of the textbooks was coded under 11 principal themes. Data were treated statistically. The distribution of modernization themes across subject areas was quite uneven and multimodal. The three top categories were scientific outlook, application of modern technology to increase productivity, and modern attitudes. The books incorporated most of the general recommendations of the Commission in regard to curriculum reform.

CAIRNS, JOYCE, & INGLIS, BILL. (1989). A content analysis of ten popular history textbooks for primary schools with particular emphasis on the role of women. *Educational Review, 41*(3), 221-226.

Determines through content analysis the types of history emphasized in 10 textbooks used in primary schools in England, with special attention given to the history of women. A category system of 10 parts was devised. The role of women formed a subcategory in each category. In the case of women, a qualitative and quantitative analysis was conducted. Although many types of history were included in the texts, economic, cultural, and religious history were neglected in favor of political and military history. With the exception of one author, a traditional approach was taken in the role of women, which appeared to be unaffected by the Sex Discrimination Act of 1975.

GRACI, JOSEPH P. (1989, October). Are foreign language textbooks sexist? An exploration of modes of evaluation. *Foreign Language Annals, 22,* 477-486.

Reviews 20 studies of content analysis of sexism in foreign language textbooks published between 1975 and 1984. Included were nonsexist guidelines established by publishing companies and professional organizations, a summary of each study, and comparison of the studies on the basis of seven categories of analysis: male and female pronouns, males and females in illustrations, stereotyped social roles, occupations, males and females identified with occupations, male and female names in titles, and males and females appearing throughout the text.

HAMM, MARY, & ADAMS, DENNIS. (1988). How science, technology, and society issues are presented in science textbooks. *Educational Research Quarterly, 12*(2), 30-35.

Examines 10 of the most widely used grades 6 and 7 science textbooks for coverage of five issues of global problems related to science and technology. Content was coded by number of pages per category and the degree of depth in which the content was treated. The most important global issues had been determined by 400 scientific experts. The analysis of 4,393 pages showed that 80.5 pages (1.8%) of the content addressed issues of population growth, world hunger, war technology, air quality, and water resources. Chi-square and Kruskal-Wallis tests revealed significant differences among category issues. No significant differences were found in the number of issues and the degree of depth in the textbooks at the two grade levels.

BADER, RENATE G. (1990, Spring). How science news sections influence newspaper science coverage: A case study. *Journalism Quarterly, 67,* 88-96.

Compares the coverage of science in two groups of daily newspapers to determine how the addition of a science news page influenced the coverage. All science stories (924) were analyzed in a sample of 252 editions of nine daily newspapers, some of which had added special science sections. Individual articles were coded for length, source, accompanying photos or graphics, subject matter, and the first page of the article. Data for different papers and the time before and after the science sections were introduced were analyzed separately. It was found that when a paper adds a science section there are increases in the number of science stories, more illustrations, and a tendency to group basic science and technology stories in the special section. The addition of a special science section had less effect on the coverage of the environment and medicine, stories which appeared throughout other sections of all sample papers.

HINKLE, GERALD, & ELLIOTT, WILLIAM R. (1989, Summer). Science coverage in three newspapers and three supermarket tabloids. *Journalism Quarterly, 66,* 353-358.

Compares the coverage of science in three supermarket tabloids with that of three mainstream newspapers. Over a five-week period, five editions of each of the six newspapers were content analyzed for the number, length, and content of science stories. Science stories were divided into three categories: medicine/health, technology, and hard science. Paragraphs and words were counted. Supermarket tabloids were more likely to cover stories about medicine and health and somewhat more likely to devote a greater portion of their "news hole" to science stories than was the mainstream press. The *New York Times* gave more coverage to science stories, followed closely by two supermarket tabloids. There were fewer pseudoscience stories in the tabloids than expected.

LACY, STEPHEN; SOHN, ARDYTH B.; & STEPHENS, LOWNDES F. (1989, Spring). A content analysis of metropolitan and suburban papers in Denver and Detroit. *Newspaper Research Journal, 10*(3), 39-50.

Content analyzes 4 metro daily and 28 suburban nondaily newspapers for a randomly constructed week in the Denver and Detroit areas to determine the nature and extent of suburban-oriented content in each city. The units of analysis were square inches and the percentage of news-editorial space given to each of seven content categories. News coverage of the suburbs was slight in the metropolitan papers in both cities. The only difference found in these newspapers was in the coverage of law enforcement. The Detroit suburban papers provided more extensive news coverage of the home suburb in both square inches and percentage of news space devoted to the various news categories. It was concluded that suburban nondaily and metropolitan daily newspapers do not need to compete for readers as the content is not equivalent.

WINDHAUSER, JOHN W.; SEITER, JENNIFER; & WINFREE, L. THOMAS. (1990, Spring). Crime news in the Louisiana Press, 1980 vs. 1985. *Journalism Quarterly, 67*,72-78.

Determines how crime news was covered in 24 Louisiana dailies in 22 cities in 1980 and 1985. Each story about crime was coded as to newspaper, time period, story placement, headline width, location of the crime, and type of crime news. An increase in coverage was found in 21 newspapers which accounted for a 67% increase in the number of crime-related items in all the newspapers. Much of the coverage resulted from publishing more incidents related to driving under the influence of alcohol and crime prevention stories. In 1985 more crime news was published on the front page with larger headlines than in 1980, but most appeared on inside pages both years. Crime news did not mirror reported crimes as violent crimes were found to have a statistically unwarranted status in the media. Recently more emphasis was placed on violent crimes committed elsewhere in the world.

CAUDILL, EDWARD, & ASHDOWN, PAUL. (1989, Summer). The *New England Journal of Medicine* as news source. *Journalism Quarterly, 66*, 458-462.

Examines how eight metropolitan newspapers report stories originating in the *New England Journal of Medicine*. The 124 stories were coded for content, origin (wire or staff), length, sources of information, methodological citation, category of news story (research, editorial, correspondence). The press was accurate in distinguishing research from opinion. Two categories (AIDS, career) accounted for more than a third of the stories. Only 32.6% of the stories used more than 30 words to explain research methods. Nearly 75% of the 31 staff written and 56.7% of the wire stories referred to sources outside the immediate article.

GREENWALD, MARILYN S. (1990, Winter). Gender representation in newspaper business sections. *Newspaper Research Journal, 11*, 68-74.

Focuses on the treatment of women as both writers and subjects and sources of stories in the business sections of two newspapers, one being edited by a man and the other by a woman. The front pages of each newspaper's business section from June 23, 1987 to July 22, 1987 were coded for numbers of stories and photos, stories about or quoting women, stories by women, and photos showing at least one woman. Stories were coded similarly for males. In 180 items in one paper women were the main subject of 1 story and 4 briefs; men, 31 stories and 10 briefs. Ten items were written by women, 35 by men. In 116 items in the other paper, women were the subject of 6 stories and 4 business briefs. Female bylines were found in 35 stories; male, 42. Men were the subject of 29 stories, and 22 briefs. A noticeable difference in the two newspapers was that the one whose business section was headed by a woman ran 5-1/2 more stories bylined by women than did the other one.

JOLLIFFE, LEE B. (1989, Autumn). Comparing gender differentiation in the *New York Times*, 1885 and 1985. *Journalism Quarterly, 66*, 683-691.

Compares the descriptive language and sex-linked roles ascribed to men and women in sample articles from the *New York Times* in 1885 and 1985. A sample of stories about men and women was content analyzed to determine prominence or location of coverage in the newspaper; space allotted, topical categorization of stories; occupational roles portrayed; language choices made; use of factual, inferential, or judgmental references; and placement in active/passive sentence construction in headlines. Results from each of these methods are compared to show changes in gender differentiation over the past 100 years. Of the methods used, the measures using individual words provided greatest detail and strongest evidence of gender differentiation. The results of the investigation suggest that newspaper portrayal of women has improved over the 100 years, but women still are not given equal space in the *New York Times*. Men are shown in traditional roles. It was concluded that the newspaper portrayal today does not reflect reality for either sex.

SIMON, TODD F.; FICO, FREDERICK; & LACY, STEPHEN, (1989, Summer). Covering conflict and controversy; Measuring balance, fairness, defamation. *Journalism Quarterly, 66*, 427-434.

Focuses on fairness and balance in newspaper stories and relates them to type of controversy, defamatory statements, and type of newspaper in which they appeared. Three groups of newspapers were used to test the hypothesis: 5 prestige, 12 high circulation, and 4 prestige-high circulation. Local stories (N=620) involving controversy and relating to government (34%), public school education (4%), business (17%), and local law enforcement (45%) were analyzed. Through content analysis 39 variables were coded, including total word length and statements of wrongdoing, impropriety, conflict, and defamatory statements. Balance was measured by using the difference in word count between two conflicting sides. Fairness was determined by evidence of contact with both sides of the controversy. Wrongdoing was found in 50% of the stories, largely in those of law enforcement; conflict, 41%; impropriety, 9%. Most stories lacked balance. Fairness was questioned when 28% of the stories reported only one side of the conflict. The high circulation-prestige papers did the worst job in balancing sides of a controversy.

WILLINSKY, JOHN. (1989). The vocabulary of cultural literacy in a newspaper of substance. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 205-212). Chicago, IL: National Reading Conference.

Tabulates how often cultural terms appear in the *New York Times* from June 1980 to October 1988. Using a commercial database service, a random sample of 424 terms (9%) was selected by choosing every 10th term from the original list covering a period of 101 months. The terms were divided into eight categories based on a modification of the list provided by Hirsch et al. in the *Dictionary of cultural literacy.* The frequency of occurrences for the 424 terms examined ranged from 0 (n=13) to 236, 269 (n=1, "New York"). The average number of occurrences was 1,323. The top 30 terms had ratings over 4,800 and involved fundamental political and economic concepts such as democracy and republic. Geography was the category with the highest frequency and history came in with the lowest frequency. Implications are discussed in terms of the validity of a representative list of cultural terms that serve as a core for education in this society.

KING, ERIKA G. (1990, Spring). Thematic coverage of the 1988 presidential primaries: A comparison of *USA Today* and the *New York Times*. *Journalism Quarterly, 67*, 83-87.

Asks if the *New York Times* and *USA Today* display the same patterns of thematic coverage of the Republican and Democratic primaries. All weekday front page news stories of the presidential primaries in both papers from January 8 through June 8, 1988 were analyzed. A total of 1,729 sentences were placed under five thematic categories: horse races (competition), campaign issues, personal qualities, policy issues, and other. Horse races was by far the most emphasized theme. Only about one-tenth of the coverage highlighted campaign issues. The Democrats had more front page coverage than the Republicans because of a more protracted horse race. Both papers' coverage of material other than the horse race was about equally divided between the two political parties.

STEMPEL, GUIDO H. III, & WINDHAUSER, JOHN W. (1989, Winter). Coverage by the Prestige Press of the 1988 presidential campaign. *Journalism Quarterly, 66,* 894-896, 919.

Describes the coverage of the 1988 presidential campaign made by 14 newspapers between September 5 and November 7. All issues of all newspapers were coded. The length of each story was recorded in column inches. Overall, coverage was evenly divided with six giving the Democrats more favorable coverage while eight gave the Republicans more favorable coverage. Endorsements seemed unrelated to coverage. The amount of coverage was slightly greater than it was in 1980, but the amount of front page coverage was less. The Democrats received favorable coverage early in the campaign while the Republicans received it later.

ZAHAROPOULOS, THIMIOS. (1990, Spring). Cultural proximity in international news coverage: 1988 U.S. Presidential campaign in the Greek press. *Journalism Quarterly, 67,* 190-194.

Tests the idea that cultural proximity influences news choices in two Greek national newspapers, published in Greece. A content analysis was conducted of a liberal and a conservative Greek newspaper to determine the amount and type of coverage each provided during the last 3 months of the 1988 U.S. presidential election campaign. Variables considered included section of newspaper where item appeared, source, length, issue, topic, type of item, presence of photographs, and evaluation treatment. Michael Dukakis was given more space and more favorable treatment than was George Bush. The two newspapers used similar wire sources and differed little in their overall coverage of the campaign despite strong ideological differences. It was concluded that cultural proximity played a key role in these newspapers' coverage of the campaign.

PEASE, EDWARD C. (1989). Minority news coverage in the *Columbus Dispatch. Newspaper Research Journal, 10*(3), 17-37.

Analyzes minority news content of the *Columbus Dispatch* in constructed two-week periods in 1965 and 1967. All items were coded good or bad for content, length, dateline, byline, and accompanying art, and as spot or process oriented news. Little change was found in the amount of coverage in the two time periods, but some improvement was noted in tone and kinds of coverage. There was a shift from spot to process news. Although the tone in much news was less negative, in 1967 there was an emphasis on crime, politics/government, and human interest. It was concluded that minorities had made little progress in terms of having their voices heard and their concerns and problems discussed.

MARTINDALE, CAROLYN. (1990, Winter). Changes in newspaper images of black Americans. *Newspaper Research Journal, 11,* 40-50.

Investigates the amount and changes of stereotyped coverage of black Americans found in four metropolitan newspapers before, during, and after the Civil Rights Movement. The total sample size was 245 issues covering three periods: 1950-1953, 1963-1968, and 1972-1980. The recording unit was any newspaper item that concerned black Americans or events involving them. Four content categories with 16 subcategories were devised. All pertinent items were measured and assigned to the appropriate subcategory. Coverage of black American represented a small fraction of each paper's total news content. Stereotypical portrayals of blacks as criminals and entertainment or sports figures comprised a substantial portion of the coverage of blacks. In the 1970s stereotypical coverage rose from the 1960 levels, representing 8-18% of each paper's coverage of blacks. A new image of blacks as politicians began in the 1960s and reached substantial proportions in the 1970s.

MARTINDALE, CAROLYN. (1989, Winter). Selected newspaper coverage of causes of black protest. *Journalism Quarterly, 66*, 920-923, 964.

Measures the coverage of causes of black protest in four major newspapers in the 1960s and compares this coverage with that of the 1950s and 1970s. The recording unit was any newspaper item concerning black-initiated protests or demonstrations. The total sample was 245 issues. All items and the proportion of each one devoted to explanations of the reasons for the protest were measured. Only 3 protest stories were found from the 44 issues in the 1950s; 71 from the 90 in the 1960s; and 4 from the 111 in the 1970s. In the 1960s an average of 5% focused on the causes of the protests. Nearly all of these stories centered on facts about the protest event itself. In the 1950s and the 1970s most of the newspapers studied devoted a much higher percentage of their protest coverage to an explanation of the causes of protests than in the 1960s coverage.

LESTER, PAUL, & SMITH, RON. (1990, Spring). African-American photo coverage in *Life*, *Newsweek* and *Time*, 1937-1988. *Journalism Quarterly, 67*, 128-136.

Performs content analysis of the pictorial treatment of African-Americans in *Life*, *Newsweek*, and *Time* for the entire year for each of 11 sampled years between 1937 and 1988. The unit of analysis was the page. Of the 160,802 total pages studied, 34,237.9 pages were devoted to pictures of human figures. Of these 1,149.1 (3.36%) were pictures of African-Americans. Their portrayal increased over time. During periods of social unrest an increase occurred for pictures in the social commentary, crime, and prominent persons categories and cover photographs while everyday life and advertisement photographs decreased. Much similarity was found for all categories for the three magazines during the time period. Three eras emerged from the 51 years: 1937 to 1952, early racial stereotyping but increased awareness of African-American problems; 1957 to 1972, rise of the civil rights movement and urban riots; 1978 to 1988, attempt by leaders to effect change by working within the various political systems.

ORTIZANO, GIACOMO L. (1989, Autumn). Visibility of blacks and whites in magazine photographs. *Journalism Quarterly, 66*, 718-721.

Compares the presence of black-only, white-only, and racially mixed photographs in editorial and advertising content of six monthly magazines – three with predominantly white readership and three with mainly black readership. The 6,263 photographs were coded from July through December 1988. The proportion of black-only photographs was smaller in advertising content than editorial in *Life* and *Players*. *Ebony*, *Players*, and *Playboy* showed a larger proportion of white-only in advertising than in editorial content and a larger proportion of racially mixed photographs in editorial than advertising content.

YOSHIDA, ROLAND K.; WASILEWSKI, LYNN; & FRIEDMAN, DOUGLAS L. (1990, February). Recent newspaper coverage about persons with disabilities. *Exceptional Children, 56*, 418-423.

Content analyzes a sample of articles from five metropolitan newspapers for 1986 and 1987 to determine the specific issues of concern to service providers of persons with disabilities, the percent of articles written for each type of disability, and the age levels of the people featured. The most frequently featured issues about disabilities were budget expenditures, housing or normalization, and treatment in institutions. The less frequently discussed issues were school-related instruction, mainstreaming, and Public Law 94-142 compliance. Only 18.6% of the articles focused on children; 47.9% featured adults; and 33.5% comprised the unspecified age-level category. Since there were few articles about special education, the suggestion was made that those in special education develop strong relations with newspaper personnel.

ALMERICO, GINA M., & FILLMER, H. THOMPSON. (1989, July). The portrayal of the elderly in the U.S. print media. *Reading, 23*, 98-104.

Reviews research concerning the portrayal of senior citizens in newspapers, children's and adolescents' books, basal readers, and magazines. Recommendations are made to writers, illustrators, publishers, and teachers. It was concluded that children are learning subtle stereotypes from the print media.

KESSLER, LAUREN. (1989, Summer). Women's magazines' coverage of smoking related health hazards. *Journalism Quarterly, 66*, 316-322, 445.

Analyzes six women's magazines published between 1983 and 1987 for the coverage of health hazards related to smoking. Possible relations between this coverage and cigarette advertising were studied. During that time period, all issues of the six magazines were analyzed for news stories, editorials, and advertisements. Questionnaires were completed by the health editors of the magazines. Considering news briefs, mentions in health stories, and in related nonhealth stories, cigarettes were mentioned only 40 times in the combined magazines. Of these, fewer than half mentioned serious effects from smoking. Some evidence was found that advertising revenue was related to the extent of coverage of risks from smoking. No magazine gave substantive coverage of this topic.

OLOWU, TERRY A. (1990, Spring). Reportage of agricultural news in Nigerian newspapers. *Journalism Quarterly, 67*, 195-200.

Describes the reporting pattern of agricultural news in 17 Nigerian daily newspapers and determines the relation between content and space measurements of agricultural stories. A random sample of these newspapers published between January 1, 1980, and December, 31, 1985, yielded 1,800 newspaper editions. Agricultural news was categorized under six headings. Three variables were used: column inches, number of articles, and number of items of each category (i.e., the number of times each category was discussed). One story in 20 was devoted to agriculture, the largest category dealing with general agricultural news and the smallest with pricing and marketing. A relatively low correlation was found between the length and number of agricultural stories measured separately.

SCHILLINGER, ELISABETH. (1989, Winter). Two Moscow dailies: Content changes and *Glasnost*, 1985-1987. *Journalism Quarterly, 66*, 828-835.

Compares the content of *Moscow Pravda* (morning paper) and *Evening Moscow* in 1985 and 1987 and determines how each paper responded to the social, political, and economic changes under Gorbachev's regime. The sample consisted of 12 issues per year for each newspaper, totaling 48 issues. The unit of analysis was the newspaper item, categorized into one of 14 subject categories. Items also were classified as to hard or soft news and geographical focus. They were identified as exemplifying *glasnost* and were classified as being self-critical or nonself-critical. In both years, *Evening Moscow* published significantly more items than did *Moscow Pravda*. Highly significant differences between the two newspapers were found in the distribution of the subject areas, in the frequency of hard and soft news, and in geographical focus. Equal total variation within the two newspapers was found for 1985

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and 1987. In *Moscow Pravda* there was a significant increase in hard news in 1987. Other findings are reported.

Yu, Yang-Chou, & Riffe, Daniel. (1989, Winter). Coverage of Chiang and Mao in three U.S. news magazines. *Journalism Quarterly, 66*, 913-919.

Analyzes topics related to Mao and Chiang in three news magazines between October 1949 and September 1976 to determine the treatment of the two leaders. The time period for the analysis was divided into three parts: 1949-1959, designated as the hostility period; 1960-1969, the transition era; and 1970-1979, the alliance era. Each of the 184 articles was coded for date, magazine, focus (Mao or Chiang), and square inches. Within these time periods articles were coded into one of 14 topic categories and judged as favorable, unfavorable, or neutral. The three magazines devoted 52 articles to Chiang and 132 to Mao. The average Chiang article was longer than the one for Mao. The total number of Chiang articles decreased while those for Mao increased in the three periods. The coverage for Mao became more favorable, but the main trend was more objective coverage of both leaders.

Blackwood, Roy E. (1989, Summer). Ronbo and the peanut farmer in Canadian editorial cartoons. *Journalism Quarterly, 66*, 453-457.

Compares how the Carter and Reagan administrations are portrayed in editorial cartoons in two Canadian newspapers from September 1977 to August 1980 and September 1983 to August 1986. Data collected for the 568 cartoons included the cartoonist, major actors, negative or positive stance, and topic depicted. People appearing most often were Carter and Reagan. Among the most frequently portrayed topics in the 1977-1980 sample were detente/international relations, Cuban refugees, and oil imports/energy shortage. In the 1983-1986 period, U.S.-Canadian relations, arms talks, and presidential personality/policy were most frequently portrayed. Negative issue portrayals were found in 207 and 268 cartoons of the two periods. The two administrations were portrayed quite differently with Carter being more favorably presented than Reagan.

Tansey, Richard; Hyman, Michael R.; & Zinkhan, George M. (1990). Cultural themes in Brazilian and U.S. auto ads: A cross-cultural comparison. *Journal of Advertising, 19*(2), 30-39.

Compares Brazilian and United States automobile advertisements on two themes: urban/wilderness and work/leisure. Two business magazines were analyzed: *Business Week* for the United States and *Visao* for Brazil. All automobile ads intended for consumers were examined in every issue published between 1971 and 1980. The final sample consisted of 819 ads, 623 in *Business Week* and 196 in *Visao*. Urban themes were used more frequently in Brazil than in the United States while the reverse was true of leisure themes. Work themes appeared as frequently in Brazilian ads as those in the United States. More work themes appeared in the United State as the 1970s progressed.

Stout, Patricia A.; Wilcox, Gary B.; & Greer, Lorrie S. (1989, Winter). Trends in magazine advertorial use. *Journalism Quarterly, 66*, 960-964.

Presents the results of a content analysis of advertorials found in four categories of magazines (general interest, women's, men's, regional) published from 1980 through 1986. Advertorials are here defined as "those advertiser paid blocks that combine clearly identifiable advertising with simulated editorial text." A total of 672 issues of eight magazines (12 issues per year for each magazine) comprised the sample. For each issue, the total number of magazine pages and the total number of advertorial pages were counted as well as product categories. There was an increase from a low of 8 in 1980 to a high of 43 in 1986. The number of advertorials used in 1985 increased 171% over those used in 1984. Four themes accounted for 75% of the advertorials: travel, food/cooking, sports, health/fitness. Multiple sponsorship was found for 61% of the advertorials.

Sherer, Michael D. (1989, Summer). Vietnam war photos and public opinion. *Journalism Quarterly, 66,* 391-395. 530.

Content analyzes Vietnam war photographs in *Time, Life,* and *Newsweek* to determine when public support for the war changed. Photographs appearing one week before and during the week when the Gallup Poll measured public support for the war were coded for scene, subject, portrayal, and perspective. The photographs were grouped into three time periods. The results of cross-tabulation analyses showed that as public opinion about the war shifted so did the image of the war in photographs. These magazines carried a majority of noncombat images when public support for the war was high. During the transition period when public support was divided nearly in half, more combat and combat related photographs were found. When a definite drop in public support occurred, the magazines returned to nearly the same percentage of combat images as when public support was strong.

Tymchuk, Alexander J. (1990). Variability in information found on labels of high risk household products. *Educational Gerontology, 16,* 283-288.

Examines the type and frequency of information presented on labels of common, high risk household products. Five senior citizens listed types of high risk household products they were using. From these lists, five products were chosen for study. The labels for these were analyzed in relation to 28 informational items relating to appropriate use and care of the product, describing the product and manufacturer, and describing what to do in case of an accident. Percentages were calculated for each category and the total. The results showed that very little information was listed and much variability across products was found, despite the designation of high risk.

III-3 Readability and legibility

Glass, Betty J., & Cook, M. Kathleen. (1990, Spring). Readability of children's periodicals yesterday and today. *Reading Horizons, 30,* 224-232.

Compares the readability level of children's periodicals currently published and that of similar publications approximately 100 years ago. The nineteenth century periodicals selected were *St. Nicholas* and *Harper's Young People;* the current ones, *Highlights for Children* and *Cobblestone Highlights.* Three sample passages were selected in each of four categories: student-written poems, letters to the editor, fiction, and nonfiction (for a total of 48. A software package – the Spache Readability Formula, the Dale-Chall Readability Formula, and the Fry Readability Formula – was used to determine readability levels. The reading levels of poetry and letters to the editor were very similar in both periods. The average readability levels of fiction in the earlier magazines ranged from 6.8-8.6; in the current magazines, 2.1-5.6. For nonfiction, the early magazines ranged in readability from 8.1-9.6; the current ones, 3.9-11.0.

Catalano, Kevin. (1990, Spring). On the wire: How six news services are exceeding readability standards. *Journalism Quarterly, 67,* 97-103.

Questions whether the major wire services provide newspapers with reports too difficult for readers to comprehend. During a two-week period the top stories from the Associated Press, United Press International, and Scripps Howard were studied as were the top five stories from the front page advisories for three metropolitan newspapers. The words in the first five sentences were counted. Sentence lengths between wire services were compared by one-way analysis of variance. Differences between each wire service's lead and subsequent paragraphs were analyzed by t-test. Difference of proportions tests were used to compare the percentage of single-sentence paragraphs. The average lead sentence lengths ranged from 25 to 39 words. Lead sentences were longer than the next three sentences. The Associated Press used more one-sentence leads (95%) than did UPI (77%). Readability was assessed only by sentence length.

UTT, SANDRA H., & PASTERNACK, STEVE. (1989, Autumn). How they look: An updated study of American newspaper front pages. *Journalism Quarterly, 66,* 621-627.

Replicates a study conducted five years previously in which front page daily newspaper design was examined and attitudes of editors toward the importance of design to readers were questioned. Questionnaires were sent to 161 daily newspapers with a circulation of 25,000 or more; 93 (58%) responded. They were asked to describe graphic and design characteristics of their newspapers including overall design, color, photography, typeface selection, informational graphics, flag indexes, artwork, and printing method. They also gave their opinions about the attractiveness of American dailies and how important graphics and design are to their readers. Most American daily newspapers have adopted modern design practices and attitudes. The current trend is toward greater use of color, information graphics, and pictures. Seven in 10 editors feel that readers consider appearance when deciding which paper to read. Other changes were noted. Much of the reason for change is due to available technology.

KELLY, JAMES D. (1989, Autumn). The data-ink ratio and accuracy of newspaper graphs. *Journalism Quarterly, 66,* 632-639.

Tests the data-ink ratio as it might apply to graphics used in mass circulation newspapers. (The data-ink ratio holds that a large share of ink on a graphic should present data information, not nonredundant art work or symbols.) Accuracy of recall of graphs containing a substantial amount of nondata-ink and graphs with this ink erased was tested in 2 treatment designs. Each of the 120 college subjects was given a graph to inspect and then a set of questions. Each answer sheet was scored for accuracy. The results of t-test indicated the null hypothesis that nondata-ink has no effect on accuracy could not be rejected. Only 1 of the possible 10 treatments showed a significant difference between the two conditions.

MICHALSKI, KAREN B., & GUILE, MICHAEL N. (1990, May). Readability of simulated state question ballots affects voting behavior. *Bulletin of the Psychonomic Society, 28,* 239-240.

Tests whether 102 college students vote positively or negatively when given two state question ballots similar in content but different in readability. Subjects were randomly divided into two groups. One group received 10 questions (estimated readability of 9.7) posed on the 1984 Oklahoma state ballot. The second group received the same ballot questions rewritten to a readability level of 5.8. Readability grade levels were determined using the Fry procedure. Subjects were asked to vote for or against the questions in the simulated election. More negative votes were counted for the questions with a lower readability. The more simplified the language used in the voting ballot, the more likely the proposition would be challenged by the voter.

III-4 Reading interests, preferences, habits

DECHERT, CHRISTIANE, & KASTNER, PETER. (1989, Summer). Undergraduate student interests and the cultural content of textbooks for German. *Modern Language Journal, 73*, 178-191.

Compares the results of 286 college students' ratings of cultural interests with an analysis of content in 10 first- and second-year German textbooks. Subjects expressed their interest, on a scale of 1 to 5, in 99 topics and answered demographic questions in a survey. The textbooks were analyzed in terms of the amount and variety of cultural topics. Student variables that resulted in significant differences in ratings were gender (females had more interests than males), study of another foreign language, and the students' home college (departments). In comparing the cultural content of the textbooks with student interest ratings, the rank order of the 99 items was used. The coefficients of correlation between student interest ratings and the number of words devoted to a particular topic were low to moderate for all 99 cultural aspects.

STRAUGHAN, D.M. (1989). An experiment on the relation between news values and reader interest. *Gazette, 43*(2), 93-107.

Examines the relation between the presence of news values (timeliness, prominence, cultural proximity, conflict) and reader interest. The 240 college subjects (120 experimental; 120 control) showed on a thermometer scale their interest in reading each of 40 news items. Each set of news items consisted of a news value or a pair of news values and a corresponding item without the news values. To determine any significant differences between the groups on age, sex, major, visits to foreign countries, and media as variables, t-tests and cross tabulations were calculated. Readers scored items containing conflict and proximity higher than those not containing these values. No significant difference in reading interest was found between items containing timely and prominent news values and those that did not. Significant relations were found between frequency of viewing television news and interest in foreign news and between frequency of reading newspapers and interest in foreign news.

FISHER, JAMES C. (1990, January/February). The function of literacy in a nursing home context. *Educational Gerontology, 16*, 105-116.

Examines literacy-related activities of 28 elderly adult nursing home residents. Interviews were conducted concerning their reading and computational skills, their activities in the home, and their perceptions of retirement and aging. Data were treated qualitatively. The average age of the subjects was 81; the range was 66-94. Educational attainment ranged from grade 3 to postbaccalaureate study. Nearly all described their reading in terms of newspapers, magazines, novels, nonfiction, poetry, and religious literature. Their reading appeared to be a continuation of a lifelong habit, not a recent development. Two purposes for which subjects read were as a valued activity and as a necessity for proper functioning in the nursing home. From their descriptions of their activities, the emphasis was on socialization and manual skills, not literacy. It was concluded that skill performance was related to opportunities for application (which seemed lacking), life requirements, and personal desire.

SCALES, ALICE M. (1989, Fall). Reading perceptions of the elderly adult. *Reading Improvement, 16*, 225-230.

Inquires if older elderly adults perceive their reading needs and abilities differently from younger elderly adults when marital status is a consideration. ANOVA and pairwise t-tests were used to determine how the groups perceived their reading skills, reading preferences, emotional awareness, and physical capabilities. The 179 volunteer subjects were divided into two main groups: the younger (ages 60-67) and the older (68-94). These were subdivided into married, single, and widowed. The elderly younger married adults indicated a greater preference for reading than younger single and older married adults. Older single adults perceived themselves as needing reading skills assistance more than younger or older widowed adults, and older married adults. Elderly younger married adults did not perceive their need for more reading skill assistance than younger single and older married adults. Other comparisons are included in the report.

III-5 Readership

Garrison, Bruce. (1989). Hispanic readership in south Florida: Who reads Spanish-language magazines? *Mass Communication Review, 16*(3), 43-48.

Explores readership of the Hispanic magazine, *Miami Mensual*, in a Florida market. The independent variables were age, income, gender, education, reading language preference, and occupation. The dependent variable was readership, measured by amount of time an issue was retained, content read most often, desire for additional information or for less information on different topics, and readership habits of other Spanish news media. A two-page questionnaire was completed by 282 subscribers. Demographics for this group included: median age, 49 years; 66%, male; median income, $45,050; primary occupation, professional or executive (42%), or owner (15%); college education, 67%; preference for Spanish over English (75%). A copy of the magazine was retained six months or more by 38%. Other Spanish magazines were read by 58% while 67% read Spanish-language newspapers. Few significant differences were found between readership and age, occupation, or income.

Wesson, David A. (1989, Autumn). Readability as a factor in magazine ad copy recall. *Journalism Quarterly, 66*, 715-718.

Hypothesizes that readership will be higher for advertising copy with lower readability grade level scores. All issues from three general interest magazines which had been processed for recall measure by Starch-Hooper Research were used. The latter was used as the dependent variable; the results of the Gunning Fog Index were used as the independent variable. Copy recall for 98 advertisements was found to be curvilinearly related ($p < .05$) to copy readability. A secondary finding was that copy yielding readability scores at the high end of the spectrum tend to rate higher in recall than medium level copy.

Wesson, David A. (1989, Summer). Headline length as a factor in magazine ad readership. *Journalism Quarterly, 66*, 466-468.

Addresses the question of optimal headline length in magazine advertising and relates the findings. The 136 advertisements evaluated were from three issues of general interest, consumer magazines. Independent variables were the number of characters and number of words in each headline. A variable was also computed which consisted of words longer than three characters. Dependent variables were the headline readership score as reported by Starch and a variable computed to mediate the relation between headline score and interest in the advertisement. The headline statistics were analyzed for linear and curvilinear relations for all independent variables, individually and collectively, using the SPSS regression program. No statistically significant relations were found between any of the independent and dependent variables. It was concluded that what is said in headlines is more important than the number of words used.

III-6 Library usage

Qvale, Per. (1989). Using the library: Library users with reading and writing difficulties. *Scandinavian Public Library Quarterly, 22*(2), 13-15.

Describes a project in four libraries in eastern Norway to get more weak readers to use the library, to make libraries better equipped to help them, and to make the general public more aware of the extent of reading and writing difficulties. Sound posters, broadcast through radio, were aimed at four target groups: children, adolescents, adults with reading and writing problems, and parents. Each poster was broadcast once a day for 28 days, resulting in a total of 112 broadcasts. The number of books borrowed and the numbers of inquiries made about the project were recorded before, during, and after the campaign. An increase of 56% was noted in the number of borrowings by children, but the number of books borrowed by adults remained the same.

RAIT, S.K. (1989, May). Reading & information needs of elderly Punjabis. *Library Association Record, 91*(5). 279-282.

Describes the status of reading and library use of elderly Punjabis, defined as the community bound by the language it speaks, irrespective of its religion, in one community in Pakistan. Questionnaires were administered in interviews to 60 subjects. Most were literate in the language of their religion (Hindu, Muslim, Sikh) with women seeming to be functionally literate. Men were better educated than women. Men read books, periodicals, and newspapers while women read mainly books. Subjects buy and keep books and periodicals. Between one-half (the elderly) and 62% (middle-aged) men use the libraries (central, religious centers, local); fewer than 20% of the women do. Reasons for using or not using the libraries are included.

III-7 Social and cultural influences on reading

FRAATZ, JO MICHELLE BELD (1987). *The politics of reading: Power, opportunity, and prospects for change in America's public schools.* New York: Teachers College Press.

Conducts field research attempting to describe, analyze, and interpret the conduct of reading programs in elementary schools. During one school year, open-ended interviews were conducted about reading instruction with 49 classroom teachers, 15 reading specialists, 12 building principals, and 25 district administrators from four school districts in one northeastern state. Two of the districts were urban, two suburban. Each chapter in the text focuses on a different aspect of the study. In the first chapter, the author develops the conceptual frameworks used. Chapter 2 analyzes the classroom setting, describing the social and instructional demands teachers must meet, the strategies used to cope with their tasks, and the consequences of these strategies for equality of opportunity. Chapter 3 examines the services provided by the school and district reading specialists and notes how the relationships between specialists and classroom teachers result in remedial services which both replicate and reinforce the mobilization of bias in the classroom. Chapter 4 details the limited impact of principals on equality of opportunity, while Chapter 5 studies the home-school connection and suggests that parents' ability to influence teachers is subtly co-opted. Chapter 6 examines the politics of the district offices, and the final chapter summarizes and suggests implications for reform. For most poor children, school-based opportunities to learn to read are limited to the classroom. It is the classroom teachers who hold the most power to influence what occurs, but they feel powerless.

III-8 Literacy and illiteracy

OLSON, DAVID R.; TORRANCE, NANCY; & HILDYARD, ANGELA (EDS.) (1985). *Literacy, language, and learning.* New York: Cambridge University Press.

Presents a series of papers by different authors dealing with the significance of literacy in understanding various issues of language and thought. The authors, representing various disciplines, were involved in a conference resulting in the papers presented. Guiding questions for the conference focused on (1) the cultural-historical transformations of mental and social life brought about by writing and printing and the effects of literacy within a literate society; (2) the structural differences between oral and written language and between speaking and writing; (3) the changes in strategies of comprehending, thinking, and writing involved in using written language and the relations between these competencies and those involved in the understanding and use of oral language; and (4) what is involved in reading an alphabetic orthography. Original research as well as syntheses and critical analyses of research are represented in the various chapters. It is noted that it is erroneous to think of literacy in terms of consequences. Rather, what is important is what people do with literacy and what literacy permits them to do.

HAYES, ELISABETH R., & VALENTINE, THOMAS. (1989, Fall). The functional literacy needs of low-literate adult basic education students. *Adult Education Quarterly, 40,* 1-14.

Determines the self-perceived functional literacy needs of 160 low-literate Adult Basic Education students. A questionnaire was constructed in which subjects rated the extent to which they felt they needed to learn 20 functional tasks. The results of factor analysis placed these tasks into three factors: everyday reading and writing, math and measurement, and special literacy. Five distinct subgroups of learners were identified based on their needs to learn these categories of tasks. Follow-up data showed that current programs were less effective than they could be in helping learners meet their self-perceived literacy needs.

MALICKY, GRACE, & NORMAN, CHARLES A. (1989, December). The reading concepts and strategies of adult nonreaders. *Journal of Reading, 33,* 198-202.

Explores the nature of illiteracy of adults who have made minimal or no progress in learning to read or write and draws implications for planning effective programs for them. The 22 subjects in this study were either just entering or had been in literacy programs less than three months, were between ages 20 and 65 with most in the lower age range, and were socially and economically disadvantaged. Individual interviews were conducted with subjects to assess their concepts of reading. They were given a task in which familiar print was presented in three formats: picture content; sign, trademark, or logo in isolation; and typed words in isolation. The second task involved passages containing familiar language of both predictable and unpredictable nature. Subjects were asked to interact with unfamiliar material. Their responses were rated in terms of relative use of print-based and knowledge-based materials. Subjects were more successful on pictures than on print format, suggesting reliance on meaning cues. When miscues were combined across all passages, greater reliance was placed on knowledge than on print cues. Other findings are reported.

QUIGLEY, B. ALLAN. (1990, Winter). Hidden logic: Reproduction and resistance in adult literacy and adult basic education. *Adult Education Quarterly, 40,* 103-115.

Uses reproduction and resistance theory to analyze the resistance to schooling by characters found in 10 well-known works of fiction. Three significant findings were revealed from the analysis: (1) resistance did not take place with the same degree of visibility in each instance, (2) resisters were highly capable learners who wanted to learn and were not resistant to either learning or objective knowledge, and (3) the process of resistance indicated stages of awareness and steps in behavior. Characters who were the least visible in their resistance activity were the first to quit, while those who were most visibly resistant tended to stay in school longer. It was the values underlying the schooling enterprise that were resisted as, concurrently, an alternative value system was embraced and strengthened. The author draws implications from the findings to teach adults enrolled in adult basic education (ABE) programs. In particular, he notes that participants in ABE programs differ from nonparticipants and that programs designed for the former are not always appropriate for the latter. It is felt that learner grounded models of ABE programs designed with resisters would be most acceptable to that group.

COLLINS, JAMES. (1989). Hegemonic practice: Literacy and standard language in public education. *Journal of Education, 171*, 9-34.

Argues that there is a standard language literacy or universalistic literacy which has become the norm for all literacy and which, while promulgated as a universal ideal, is actually stratified and unequally available. The author proposes and discusses three major reasons why literacy in the standard language has this authoritative and controlling capacity. First is the association between the political processes of national unification and the standard language. Second is the link between literacy and social mobility. Third is the manner in which a literate tradition and schooled literacy achieve a type of indexical fixing of textbooks that discriminates against those segments of the population who have the least exposure to that tradition. Cited are a number of research reports to support the author's contentions.

FISHMAN, ANDREA. (1988). *Amish literacy: What and how it means.* Portsmouth, NH: Heinemann.

Conducts an ethnographic observation, description, and analysis of literacy in the home of one Amish family and in two classrooms, one Amish and the other, the author's own. Data collection was primarily through participant observation in the roles of friend, teaching colleague, and community participant/visitor and included interviews, other verbal interactions, field notes, and focused discussion. One chapter is devoted to the family at home and their literacy environment. Another chapter deals with descriptions of the literacy environment in what the author terms four communities: (1) the immediate community, including the relatives, friends, and people the family knows personally and interacts with on a regular basis; (2) the larger community, including all Amish everywhere; (3) the church community; and (4) the school community, consisting of parents whose children attend the school. Yet another chapter is an intensive description of literacy in the Amish school. Words were to be read accurately. Meaning was best expressed in few words, with readers needing only to recognize and recall information. Meaning was to be the same for everyone, with only one right answer existing, and that being in the text. A brief chapter dealt with the teacher's community. The author notes Amish literacy consists of six abilities: (1) to discriminate among print materials, to select from what is available, and to manage what is selected; (2) to follow written directions; (3) to recall what is read; (4) to memorize; (5) to synthesize what is read with what is already known or to synthesize information across a number of texts; and (6) to empathize with characters in the text and to apply the lessons learned through such empathy. Attention is given to the differences the study made in the author's own classroom.

JOHANSSON, EGIL. (1988). Literacy campaigns in Sweden. *Interchange, 19* (3/4), 135-162.

Describes two literacy campaigns in Sweden. The first was the early church campaign around 1700 which emphasized informal instruction for all to read, sing, and pray the holy "Word" of God from books printed in Gothic type. The second was a school campaign around and after 1850. It was based on formal schooling so that everyone could read books printed in modern type. Included in the report were some of the historical sources, problems, methods, materials, and preliminary results from a research project concerning the two campaigns. Specific church and school campaigns are described in detail.

Al-Rubaiy, Abdul A., & Al-Zubaidy, Khawla F. (1990). Knowledge within reach: Iraq's response to the illiteracy dilemma. *Educational Research Quarterly, 12*(4), 53-61.

Describes a nationwide program to eradicate illiteracy in Iraq. Illiteracy there, as in other Arabic countries, was due to an inadequate educational system, lack of incentive to become literate, low standard of living, and poor school attendance. In 1965, 56% of the population was illiterate. A new era began in 1978 when the Baath Socialist Party launched the Literacy Campaign. It had five specific objectives: to teach reading, writing, and arithmetic; to develop professional skills; to improve cultural, economic, and social standards of living; to enhance patriotic and national consciousness; and to encourage continuation of the educational process. Laws made attendance at centers compulsory for illiterates. By December 1978, over 1,300,000 illiterates were taught in the 14,000 centers. By September 1980, illiteracy was well on its way to extinction.

III-9 History of reading instruction

Bartine, David. (1989). *Early English reading theory: Origins of current debates.* Columbia, SC: University of South Carolina Press.

Traces the evolution of eighteenth and early nineteenth century British reading theory and pedagogy. The years between 1710 and 1840 were ones in which theorists examined and debated numerous fundamental issues in reading that continue to attract the attention of writers and researchers in the field of reading. The author notes that during that period in time the interest in reading was interdisciplinary and contributors to reading theory were concerned with rhetoric, literary criticism, linguistics, psychology, and pedagogy. These early theorists addressed such questions as: "What are the relationships between thought and language? How do spoken and written forms of language interrelate? Are reading for comprehension and critical reading separate activities? Are there forms and/or structures that convey meanings consistently across genres and situations for all authors who use a particular language?" While there were sharp disagreements as to what reading is or whether it can or should be considered a subject to be studied independent of other subjects, there was progress toward a theory that defined reading as an art deserving treatment in much the same way as composition.

Goodman, Yetta M. (1989, November). Roots of the whole-language movement. *Elementary School Journal, 90,* 113-127.

Traces the history of the whole-language movement, beginning with the early use of the term in the sixteenth century. The major influences from philosophy, psychology, linguistics, and education, including the areas of reading, composition, and integrated curriculum, on the movement are explored. The history is based on both research and practice.

Gilmore, William J. (1989). *Reading becomes a necessity of life: Material and cultural life in rural New England, 1780-1835.* Knoxville, TN: University of Tennessee Press.

Focuses on the role of reading and learning among the inhabitants of the Upper Connecticut River Valley, the most rural area of New England in the early years of the United States. The general theme is an understanding of the coming of the modern world to rural society. Most of the residents above the lowest level of society by wealth acquired elementary literacy during childhood or youth and sustained lifelong learning through print. The first chapter includes a description of the role played by reading within the broader history of rural New England and presents information on instructional methodologies. Chapters 2-4 stress material and cultural foundations of life. Subsequent sections of the book deal with communications and cultural foundations, family foundations of cultural participation, and continuity and change across five different habitats. Included in the last section is a reconstruction of the reading habits of some 400 families through study of their private libraries, their participation in lending libraries, and patterns of newspaper circulation.

III-10 Newspaper publication

Connery, Thomas. (1989, Summer/Fall). Management commitment & the small daily. *Newspaper Research Journal, 10*(4), 59-76.

Identifies some of the best small dailies in the United States and examines four to determine common characteristics that contribute to their excellence. Outstanding newspapers (150) were identified by 74 subjects (journalism educators, editors of metropolitan or regional newspapers with circulations larger than 50,000, and Associated Press bureau chiefs). Comparisons were made between these results and those of an earlier survey. Interviews and the examination of four newspapers revealed that four factors were present: a clear understanding of the newspaper's role in the community, reporter independence, opportunities for professional development for reporters and editors, and self-evaluation. Included were descriptive sketches of these newspapers.

Berkowitz, Dan, & Pritchard, David. (1989, Autumn). Political knowledge and communication resources. *Journalism Quarterly, 66*, 697-701.

Assesses the relation between individuals' reliance on various communication resources and their political knowledge about an Indiana congressional campaign in 1986. The purpose was to assess the reliance on the broad range of communication resources and political knowledge rather than to find the principal resource. Telephone surveys with subjects probed their knowledge of issues, their level of political interest, their reliance on communication resources for campaign information, and some demographic measures. The subjects were given a list of 11 communication resources which they rated on a 5-point scale. The measures of political information tested three types of political information. Subjects' reliance ratings for each communication resource were analyzed with education, age, and political interest as control variables. A separate analysis was run for each of the three types of political knowledge. The only communication resource consistently related to political knowledge was newspapers.

Bridges, Janet A. (1989, Summer). News use on the front pages of the American daily. *Journalism Quarterly, 66*, 332-337.

Examines the front pages of five issues of 101 newspapers to describe their use of news attributes and to determine patterns of news use. Each story was analyzed for the presence or absence of seven news attributes: proximity, timeliness, prominence, impact, conflict, magnitude, and oddity. For each attribute the proportional amount of the total space in each story was calculated. Timeliness was the most found attribute on the front page (63%) followed by proximity (61%). Factor analysis of the news attributes was conducted to determine if any underlying profiles existed among the dailies. Three profiles emerged: hard news, interpreter news, and prominence news. These factors accounted for 67% of the variance in the seven attributes, but the amount of variance in each attribute accounted for by the factors ranged from 53-79%.

Soloski, John. (1989, Winter). Sources and channels of local news. *Journalism Quarterly, 66*, 864-870.

Examines in a case study how one medium-sized daily covers local news and how that coverage determines what news is important. The methodology used was participant observation. All locally produced, bylined news stories (632 in 313 days) were examined for primary sources of information. Primary sources were elected or appointed governmental officials in 356 (56.3%) of the stories; community leaders in 82 stories (14.6%); education in 52 stories (8.2%). The most common channels of news included official proceedings, nonspontaneous events, interviews, and background briefings. The selection and placement of news on the front page and elsewhere are a part of a negotiation process journalists engage in. Based on the types of stories presented and the types of sources used, it was concluded that the newspaper's news network is firmly embedded within the power structure of the community.

SHAH, HEMANT. (1990). Some methodological considerations for the study of development news: An examination of three Indian daily newspapers. *Gazette, 45*(1), 33-48.

Analyzes development news in three Indian dailies published in New Delhi and Calcutta on randomly selected dates in 1985. In the sample 2,382 content items from news stories, features, columns, editorials, and letters to the editor were compared to 10 characteristics researchers determined as development news. Of these items 378 (15.87%) were classified as development news. In all three newspapers the four most frequently mentioned categories were: international and national economics; social welfare; agriculture and rural development; and industry, science, and technology. These four represented between 65% and 80.8% of all topics. Culture and human rights were largely ignored. Development news relied heavily on members of a government-military-industrial complex as subjects and on male government officials belonging to the party in power as sources of news. The predominant geographical focus was national or regional; rural areas received little attention.

PEASE, TED (excerpted by). (1989, Fall). Cornerstone for growth: How minorities are vital to the future of newspapers. *Newspaper Research Journal, 10* (4), 1-22.

Presents a synopsis of the major findings of a report on the relation between American newspapers and minorities in American society prepared by a 41-member coalition of newspaper industry groups. Background information included national population trends, increasing ethnic and racial diversity, education of the minority workforce, career choices, minority newspaper employees, and minority markets, including income and consumer spending. It was concluded that minority groups can provide new markets, new sources of newspaper advertising, and new employees to improve readership rates and stimulate circulation growth.

GLASSER, THEODORE L.; ALLEN, DAVID S.; & BLANKS, S. ELIZABETH (1989, Autumn). The influence of chain ownership on news play: A case study. *Journalism Quarterly, 66*, 607-614.

Compares the coverage of the Gary Hart story in 29 Knight-Ridder owned newspapers, 29 non-Knight-Ridder owned, and 27 subscribers to the Knight-Ridder news service. Each newspaper was coded from 0 for no coverage to 7 for a front-page, above-the-fold story with a bannered headline accompanied by a companion story. The mean play score for the Knight-Ridder papers was higher than that for the service subscribers, which in turn was higher than the score for the nonowned Knight-Ridder papers. No significant differences were found between the Knight-Ridder owned papers and those with no affiliation with the service. The chain ownership papers gave more and better play to the Gary Hart story than other comparable papers.

GAZIANO, CECILIE. (1989, Winter). Chain newspaper homogeneity and presidential endorsements, 1971-1988. *Journalism Quarterly, 66*, 836-845.

Asks if newspaper chains continue to be homogeneous in their endorsement of presidential candidates and if homogeneous and heterogeneous endorsing chains will vary in structural characteristics. U.S. daily newspaper presidential endorsements were obtained from *Editor and Publisher,* which polls all dailies before each presidential election. Characteristics coded included U.S. census region, circulation size, publication time, political affiliation (if any), and group membership. Data sets for newspaper groups were constructed for the election years. Chains still tend to be homogeneous in their presidential choices though less so than in the earlier 12-year period. Newspaper chains varied in homogeneity according to size, geographic scope, and other characteristics. In 1988 nonchain papers were more likely than chain-owned papers to endorse the Republican candidate. Chains grew in size and national presence, although the number of chains decreased.

HYNDS, ERNEST C. (1989, Autumn). Survey finds large daily newspapers have improved coverage of education. *Journalism Quarterly, 66,* 692-696, 780.

Explores coverage of education in newspapers by surveying 55 education editors and reporters who completed a four-page questionnaire comprised of multiple-choice and short-answer questions. Results showed that large daily newspapers in the United States have improved and expanded their coverage of education by assigning more reporters, allocating more space, and giving better play to education. Many education editors consider the commitment of their newspapers to education coverage as their greatest strength. They suggested that coverage could be improved by increasing staff, giving greater priority to education news, and holding seminars on education for writers and on press relations for educators. Part of this report was concerned with demographic data about education editors and reporters.

OLASKY, MARVIN. (1989, Autumn). Abortion news in the late 1920s: A New York case study. *Journalism Quarterly, 66,* 724-726.

Investigates exposures of illegal abortion practices published in three New York newspapers from 1925 to 1930. One month's issues per year for each newspaper were chosen at random. Coverage in the *Daily News,* the *Journal,* and the *American* was compared with the coverage in the *New York Times.* Typical stories were summarized. The first three newspapers each ran 24 to 30 abortion stories, an average of four or five per month. The coverage was critical of abortionists and considered them immoral liars, whose practice was filled with greed, fraud, and abuse of women.

LACY, STEPHEN. (1990, Spring). Newspaper competition and number of press services carried: A replication. *Journalism Quarterly, 67,* 79-82.

Examines the relation between the number of press services carried by newspapers and the intensity of competition in a replication study. The 198-paper sample represented 11% of the 1,745 daily newspapers in the United State in 1980. The dependent variable was the number of wire services carried; the independent, intensity of competition. Circulation was used as a control variable. Least squares multiple regression analysis was used to examine relationships of the variables. The results of the regression equations showed that intensity of competition was related positively to the number of wire services covered. This finding supported the results of previous research.

LACY, STEPHEN; CHANG, TSAN-KUO; & LAU, TUEN-YU. (1989, Fall). Impact of allocation decisions and market factors on foreign news coverage. *Newspaper Research Journal, 10* (4), 23-32.

Investigates possible influences of newspaper markets in the United States and the business nature of newspaper organizations on foreign news coverage. A sample of 114 newspapers from 38 states and the District of Columbia were analyzed for sources, geographic location, and type of coverage (conflict-oriented, in-depth, or other). Space was measured in square inches. The strongest relation was between circulation and foreign news coverage, followed by the relation between dependence on wire stories and foreign news coverage. As both dependence on wire stories and circulation increased, the percentage of news space given foreign coverage increased. Foreign news was more conflict-oriented than domestic news coverage. Only six newspapers carried any in-depth foreign news, but 68 carried in-depth domestic news. The most important variables related to foreign news coverage were circulation size, dependence on wire service, and city population. The percentage of foreign-born population had no relation to foreign news coverage.

LEHRER, ADRIENNE. (1989, Winter). Between quotation marks. *Journalism Quarterly, 66*, 902-906, 941.

Uses tape recordings to check direct quotations in 24 newspaper articles. They were divided into two groups: 15 articles by 10 reporters, further subdivided into eight news stories and seven interviews, and 9 articles by students in a graduate journalism class. Tape recordings were available for each item. Quotations in the articles were compared with those in the transcripts of the recordings. Discrepancies were coded as omissions, changes, or additions. The effects of these discrepancies were classified as same meaning (62), similar meanings with only a difference of nuance (34), different meaning but consistent with the article (15), different meaning inconsistent with the article (02).

III-11 History of newspapers and magazines

SCHARLOTT, BRADFORD W. (1989, Autumn). Influence of telegraph on Wisconsin newspaper growth. *Journalism Quarterly, 66*, 710-715.

Tests the hypothesis that the coming of the telegraph spurred establishment of newspapers. Growth in the number of newspapers in 10 Wisconsin cities from 1840 to 1860 was examined. Multiple regression was used to determine whether the coming of the telegraph had a significant effect on newspaper growth for the five newspapers that experienced growth, independent of the effects attributable to population growth or economic fluctuations. The dependent variable was total yearly net number of newspapers in these 5 cities from 1840 to 1860. Three independent variables were yearly total population, yearly value of an index of Wisconsin farm prices, and the number of cities that had telegraph services. The population and farm prices were entered into the regression equation first and second so that the only other variance could be attributable to the coming of the telegraph. Population accounted for 96% of the variance and farm prices, .33%. The telegraph accounted for a statistically significant 1.54% of the variance. It was concluded that the telegraph's effect was apparent in the 5 larger Wisconsin towns.

KNUDSON, JERRY W. (1989, Summer). *El Alcázar:* Daily under siege. *Journalism Quarterly, 66*, 471-473.

Describes a mimeographed paper, *El Alcázar,* published by Spanish Nationalist forces in the Alcázar, a Moorish fortress-palace in Toledo. The 63 issues (183 pages) were published between July 26 and September 28, 1936. The only contact between the outside world and the besieged fortress was the radio, which was the source of news in the newspaper. Its main purpose was to serve as a propaganda medium to bolster the spirits of those in the fortress. The Nationalists achieved a great propaganda victory because with the aid of this small paper they could pose as the defenders of Spain instead of the insurgents and invaders that they were.

MITCHELL, CATHERINE C., & SCHNYDER, C. JOAN. (1989, Winter). Public relations for Appalachia: Berea's *Mountain Life and Work*. *Journalism Quarterly*, *66*, 974-978, 1049.

Examines the first five years of *Mountain Life and Work*, a quarterly magazine published at Berea College in Kentucky, to determine the goals of its editors, intended audiences, and the ways the content reflected their goals and audiences. It maintained its original aim to alter the public image of Appalachia. The editors wanted to change the split image of the mountaineers in 1920: the noble, self-sufficient life and ignorant, alcoholic ruffians. The editors set about altering the public image by reinforcing the attractive components of Appalachian life, including independence, family values, traditionalism, and ethnic purity. They aimed their publication at social leaders, both in Appalachia and nationwide. The magazine was an example of an attempt by a nonprofit institution to sway public opinion in the 1920s.

III-12 History of printing and publishing

Luke, Carmen. (1989). *Pedagogy, printing, and Protestantism: The discourse on childhood.* Albany, NY: State University of New York Press.

Investigates the influence of printing and Protestantism on pedagogy in Germany during the sixteenth century. It is the author's contention that early Protestantism and the printing and reading of printed text were mutually reinforcing within the prevailing conditions of the period. The diffusion of Luther's ideas was made possible by mass dissemination in print. The shift from an oral to a print culture generated the formalization and systematization of language and of discourses and set the conditions for historical change in the education of children. Childhood became redefined under Protestantism; with the advent of mass literacy and the establishment of schools came the legitimacy of book learning. Luther was able to use the availability and potential of print to further promote his own ideas, a part of which included a revised concept of the family and children. The most critical steps undertaken by the educational reformers of the Reformation were the establishment of universal schooling and the transfer of power over education from the church to the state. By the mid-sixteenth century, new ideas about the family, the individual, children, social and spiritual conduct, and the management of community affairs became intertwined with the new religion. The objectives of the social reform could best be met if successive generations were convinced of the authenticity and truth of God's words. It was thus necessary for children to learn to read and believe in the Scriptures.

Harlan, Robert D. (1987). Printing for the instant city: San Francisco at midcentury. In Michael Hackenberg (Ed.), *Getting the books out* (pp. 137-164). Washington, DC: The Center for the Book.

Views the printing and publishing industry in mid-nineteenth century San Francisco. In a pilot project, the author examined the first two decades of San Francisco imprints, from 1850 when the city was first incorporated to 1869. In that time period, 2,571 books, pamphlets, and broadsides; 75 periodicals; and 255 newspapers were printed and published in San Francisco. Of the periodicals, many lasted only a year or two; about one-fourth were literary in orientation, and these, in particular, did not fare well. The most common distinctive feature of these periodicals was the quality and number of their illustrations, most often executed by resident lithographers and wood engravers. The newspapers are characterized as numerous, short-lived, and often amateurish. Of the 255 newspapers published during that period, 46 were in foreign languages with 20 in French. Some two-thirds of the French-language papers lasted for less than a year, with one lasting only one day. There were 632 books printed in San Francisco in the two decades under study, with about one-third commissioned by five firms, although 210 printers of books, pamphlets, and broadsides were identified as working in that period. During the Civil War, there was a sharp decline in book titles and book pages printed. The dominant content of the books, broadsides, and pamphlets was felt to reflect the feelings of a growing city attempting to organize itself, and of its inhabitants seeking to identify a secure position for themselves.

Green, James N. (1987). From printer to publisher: Mathew Carey and the origins of nineteenth-century book publishing. In Michael Hackenberg (Ed.), *Getting the book out* (pp. 26-44). Washington, DC: The Center for the Book.

Follows the career of Mathew Carey, one of the first American publishers to secure a national market for his books. Carey also was among the first publishers to compete successfully with English imports. In the 1790s, while technically capable of producing books equal to those produced in England, U.S. printers and publishers rarely did so, because the market was small and the capital needed was large. In the mid-1790s, Carey published two of the largest and most expensive books to appear in America. Although the venture was not financially successful, the experiences gained allowed Carey to establish a network for distributing books which resulted in his generating profit from the sale of a quarto family Bible. The financial security gained from the sale of the Bible permitted Carey to publish a large variety of high quality books and eventually to create the first great publishing house of the nineteenth century.

Hackenberg, Michael. (1987). The subscription publishing network in nineteenth-century America. In Michael Hackenberg (Ed.), *Getting the book out* (pp. 45-75). Washington, DC: The Center for the Book.

Outlines the eastern origins and subsequent westward spread and operation of the subscription publishing network. Improved technology, transportation, and advertising were utilized in establishing a distribution network which was in place prior to the Civil War. The network employed local advertising and canvassing procedures throughout the country and distributed books directly to buyers. The network's procedures proved highly successful and resulted in bringing millions of books to the American heartland.

III-13 Publication of juvenile and adolescent literature

Monaghan, E. Jennifer. (1989). For spiritual or pleasurable ends: The portrayal of children's reading in children's books, 1670-1785. In Malcolm P. Douglass (Ed.), *Reading: A literary feast* (pp. 80-92). Claremont, CA: Claremont Graduate School.

Argues that there was a shift in how children were depicted as readers in materials written for children between 1670 and 1790. The works of three authors in particular are examined as reflective of the change: James Janeway, Isaac Watts, and John Newbery. A book by Janeway, first published in 1671, consists of minibiographies of 13 children, all of whom died between the ages of 4 and 14; all of those over the age of 5 were readers. Three themes emerged in the portrayal of these children as readers: (1) reading is work and therefore meritorious; (2) pious children were early and good readers; and (3) in the eyes of their parents, some children carried reading to excess. Noted, too, was that none of the books these children read were written for children but for adults. First published in 1715, a book by Watts was seen as a shift in the direction of more child-centered content. However, even in Watts' book, literacy was seen as being used in the service of spiritual ends and learning to read the Bible. Newbery's book, originally published in 1744, struck a new theme: that learning to read was important because it encouraged upward social mobility. The portrayal of reading by children took on an increasingly secular aspect. It became possible for children to read for amusement and for pleasure as well as for spiritual ends.

VANDENPLAS-HOLPER, CHRISTIANE. (1990, February). Children's books and films as media for moral education. *School Psychology International, 11,* 31-38.

Reviews research concerned with media's part in moral education in Belgium. Both juvenile literature and films were analyzed with respect to adult-child relations, sex role stereotypes, conflict resolution, and moral reasoning. A number of books and films that have been used for moral education and the kinds of reactions they produced in children are described.

VAUGHN-ROBERTSON, COURTNEY, & HILL, BRENDA. (1989, Fall). *The Brownies' Book* and *Ebony Jr.!*: Literature as a mirror of the Afro-American experience. *Journal of Negro Education, 58,* 494-510.

Compares the content of two children's literary magazines intended primarily for Afro-American children. *The Brownies' Book* (1920-1922) and *Ebony Jr.!* (1973-1985) both ceased publication because of finances. The two magazines were compared on seven themes: pride in African and Afro-American heritage, the importance of Afro-American unity, the need for class and racial consciousness, the nature of racial awareness, the benefits of basic values and education, family loyalty, and the need for both sexes of Afro-Americans to command respect. Described are selections reflecting these themes in both magazines. Many similarities between the two magazines were noted. It was concluded that the dwindling of high quality periodical literature about the Afro-American experience creates an obstacle for those who seek the formation of a more humanistic society.

TROUSDALE, ANN M. (1990, May). A submission theology for black Americans: Religion and social action in prize-winning children's books about the black experience in America. *Research in the Teaching of English, 24,* 117-140.

Analyzes the treatment of religious beliefs and social values in four prize-winning children's books about the black experience in America. The three books written by white authors are compared for authenticity with the one by a black author. An overview of American black Christianity precedes a detailed analysis of each book. The analyses revealed that the interpretations of black American religious and social values were influenced by the authors' cultural backgrounds and by a selective version of American history. The books written by white writers ascribed to black characters a theology of racial submission. In the book by a black author, religious belief was characterized by spiritual resistance to oppression and a heritage of racial pride. Other differences were noted.

TETENBAUM, TOBY JANE, & PEARSON, JUDITH. (1989, April). The voices in children's literature: The impact of gender on the moral decisions of storybook characters. *Sex Roles, 20,* 381-395.

Examines the moral and self orientations of 212 male and female characters in 50 contemporary fiction books for children written by 21 male and 29 female authors. A modified version of Lyons' coding scheme was used to categorize justice and care moral orientations, and separate/objective and connected self-orientations of male and female characters. Characters in two phases of a moral dilemma (its problems and solutions) were coded as exclusively one orientation or the other, predominantly one or the other, or mixed. Male characters were more likely to demonstrate a morality of justice while female characters showed a morality of care. The characters displayed gender-linked moral orientations regardless of sex or the authors. Chi-square was used to analyze the hypotheses.

TRAVERS, MOLLY. (1990, March). What stories shall we tell the girls? *English in Australia, 91,* 43-53.

Analyzes *The Babe Is Wise*, an Australian book of 31 short stories written by women, to determine what is written about women's needs and desires. The purpose was to determine messages that girls might receive relating to their future as women. The various stories were analyzed according to women's roles in relation to others, the quality of these relationships, and recurring symbols and images. It was concluded that few of the stories are appropriate for girls, not because they are improper or too disillusioning or too difficult, but because young readers would find it difficult to accept the reality of the characters or situations.

MORRISON, TIMOTHY G. (1989). Universal and culture-specific aspects of Hmong folk literature. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 261-267). Chicago, IL: National Reading Conference.

Analyzes 26 Hmong folk stories using a story grammar and universal story features in order to describe story elements that are global and culture specific. The Hmong is an ethnic group originally from Southern China centralized in California. Results of the story analysis indicated that the folktales observed traditional story grammar, but possessed specific cultural aspects. The stories involve main and minor characters who are introduced early and are goal driven. Three main goals are highlighted: prosperity, happiness, and marriage. The stories have conventional beginnings and endings and generally follow a natural time ordered sequence. Characters reappear in many different stories. The use of numbers and magical elements is prevalent.

III-14 Censorship and freedom of the press

FRITCHIE, PATRICIA P. (1989, Summer). Impact of censorship cases on basal reader selection and reading curriculum. *Book Research Quarterly, 5*(2), 65-70.

Describes censorship cases in Florida, Alabama, and Tennessee and informally assesses their influence on local selections of textbooks. All three cases were brought about by fundamentalist groups. In each case the events became violent and involved a variety of methods of intimidation. Six questions were asked of 35 school personnel concerning their knowledge of and reaction to the three cases. Although most were aware (94-95%) of initial decisions, fewer (70-78%) knew about subsequent overturnings of the decisions for two cases. Recommendations are given for teachers and publishers.

SCHELL, BERNADETTE, & BONIN, LIONEL. (1989, July). Factors affecting censorship by Canadian librarians. *Journal of Psychology, 123*, 357-367.

Investigates the risk propensity and self-actualization in regard to censorship behavior of 169 public librarians from the province of Ontario. They responded to a 124-item mail questionnaire that included three established inventories. In one part they were asked to read 12 book reviews on six different books, three being banned or challenged in North American courts, and to select three for their libraries. The results showed that these librarians were generally liberal in attitude but conservative in behavior with respect to censorship and book selection. Risk propensity was a statistically significant predictor of censorious behavior. The three-item behavioral measure was satisfactory and considered to be a possible substitute for a checklist.

SCHRADER, ALVIN M.; HERRING, MARGARET; & DE SCOSSA, CATRIONA. (1989, July). The censorship phenomenon in college and research libraries: An investigation of the Canadian prairie provinces, 1980-1985. *College and Research Libraries, 50*, 420-432.

Seeks information concerning the extent of pressures to remove materials from post-secondary educational institutions in three Canadian provinces and to determine the effectiveness of written selection policies in dealing with these pressures. Five-page questionnaires were completed by 47 libraries, most serving enrollments of fewer than 5,000 students. Some kind of censorship pressure had been experienced by 30% between 1980 and 1985. Two-thirds of the challenged materials were books; the remainder included eight periodicals, two films, one encyclopedia, and one videotape. The content of the challenged materials varied widely, the most extensive being considered to be either sexually explicit or blasphemous. In only one of every three incidents was a written policy used to deal with the cases.

HACHTEN, WILLIAM A. (1989, Winter). Media development without press freedom: Lee Kuan Yew's Singapore. *Journalism Quarterly, 66,* 822-827.

Shows how media development has flourished in Singapore without press freedom. Lee Kuan Yew always has been active in shaping and controlling mass media. When he did not like messages in newspapers or magazines he cut down the circulation numbers of the offending media, thus censoring the reports which offended him. When apologies were made, the bars on circulation were lifted. Media growth has been accompanied by growth in literacy (now more than 86%) and media consolidation. All the major dailies are published by the same conglomerate which is under the influence of Lee. Radio and television are run by a semigovernmental statutory board under the pressures of Lee. Singapore has paid for its press restrictions by strained relations with certain countries and possible loss of becoming a regional media center. There are few places where a nation's major successes and shortcomings can be directly attributed to one man as in Singapore.

LAY, YUN-JU, & SCHWEITZER, JOHN C. (1990, Spring). Advertising in Taiwan newspapers since the lifting of the bans. *Journalism Quarterly, 67,* 201-206.

Questions how two leading Taiwan newspapers used the extra space allotted to them after the lifting of a 30-year ban on numbers of newspapers and newspaper pages. Thirty-two copies of each paper were analyzed, 16 before the ban and 16 after. In each issue, the number of ROP advertising pages, the numbers of classified advertising pages, products advertised, and the size of the ads were coded. The results showed that the doubling of the number of pages led to advertising taking up a slightly smaller percentage of the space. There was a relative increase in some types of advertising, such as for food, and a decline in others, such as for consumer electronics. A survey showed that readers spent more time with fewer, larger papers and have some resistance to newspaper changes.

III-15 Reaction to printed materials

WIEGMAN, OENE; GUTTELING, JAN M.; BOER, HENK; & HOUWEN, REINDER J. (1989, Winter). Newspaper coverage of hazards and the reactions of readers. *Journalism Quarterly, 66,* 846-852, 863.

Performs three studies to investigate whether the quantity and content of newspaper coverage of technological and environmental hazards is related to the reactions of the readers on that issue. In the first study, 1,078 editions of three Dutch newspapers were analyzed for articles on soil pollution in residential areas and on radioactive waste. Some 96,000 lines (the unit of measurement) were devoted to these issues, the amounts differing among the newspapers. In the second study, the content of these risks was analyzed as disquieting, reassuring, or neutral. No significant differences were found for the three newspapers with these categories. The third study examined whether readers who had been exposed to differing amounts of information differed in their reactions to the hazards. The subjects read about two hazardous conditions and completed a questionnaire measuring attitudes, dread, emotional reactions to the risks, and how people cope with the risks. The results were based on an analysis of variance with demographic variables as covariates. Significant relations were found between the amount of exposure and perceived dread, attitude, and feelings of insecurity.

MASON, LAURIE, & NASS, CLIFFORD. (1989, Autumn). How partisan and nonpartisan readers perceive political foes and newspaper bias. *Journalism Quarterly, 66,* 564-570, 778.

Tests four hypotheses to determine how partisan and nonpartisan readers react toward political criticism and newspaper bias. The 182 college subjects (136 experimental, 46 control) read a short newspaper article. Experimental subjects read about a fictitious political consultant criticizing an incumbent; the controls read about the two people in a nonderogatory situation. Subjects then rated the newspaper as biased for or against the critic and expressed their opinions of the consultant and incumbent. The group of readers who saw the negative article had a lower average opinion of the target (the one criticized) than did the group who read the neutral article. As predicted, readers who evaluated one politician positively tended to evaluate the other negatively. Partisan readers viewed the newspaper as biased against their opinions of both people. Nonpartisan readers used bias to form their opinions.

JOHNSON-CARTEE, KAREN, S., & COPELAND, GARY. (1989, Winter). Southern voters' reaction to negative political ads in 1986. *Journalism Quarterly, 66,* 888-893, 986.

Uses subjects' interpretations of fair and unfair political advertising in open-ended responses to create categories to be administered in a survey. The responses of 55 subjects to two open-ended questions were analyzed revealing 34 kinds of fair and 26 kinds of unfair advertising, later collapsed into 10 categories. The final survey instrument contained close-ended questions based on the 10 types of political ad content. Telephone interviews were conducted in six cities with 1,917 subjects. Items comprising personal characteristics were considered to be unfair when used against a political candidate, but items on the political issues scale were considered fair comment. There were small but significant differences in this opinion based on education, sex, and income even when the common variance of these three variables were controlled. The majority (67%) stated that they did not favor the use of negative political advertising, but they had a high recall of negative ads.

KILBOURNE, WILLIAM E. (1990, Spring). Female stereotyping in advertising: An experiment on male-female perceptions of leadership. *Journalism Quarterly, 67,* 25-31.

Tests the effects of viewing black and white pictures (photographs) used in advertising portraying women in stereotypical sex roles. The 103 male and 70 female undergraduate subjects evaluated different versions of ads of women represented either as a housewife or a professional in different settings with different products. Following the experiment, subjects evaluated a neutral female photograph on such traits as aggressiveness, leadership, analytical ability, rationality, and liking for doing complex tasks. Men rated the neutral female as high on these dimensions, but the experiment had little effect on women subjects.

WU, BOB T.W.; CROCKER, KENNETH E.; & ROGERS, MARTHA. (1989, Autumn). Humor and comparatives in ads for high- and low-involvement products. *Journalism Quarterly, 66,* 653-661, 780.

Examines possible interactive effects of comparative advertisements, involvement, and humor in ads through the use of a 2X2X2 experimental design. The independent variables were humor (present vs. not), comparative vs. noncomparative copy, and consumer involvement (high vs. low). MANOVAS were used to assess the effects of the independent variable on subjects' attitude toward the advertisement, attitude toward the brand sponsoring the advertisement, and stated intention to purchase. The 360 subjects (business students) were randomly assigned to one of eight treatment groups and completed a questionnaire. The treatment/measurement package contained an ad for either a low- or high-involvement product, which used either humor or nonhumor and either a comparative or a noncomparative message. The questionnaire consisted of six sections designed to measure cognitive and affective responses toward the advertisement as well as the reactions to the brands advertised. Humorous ads were found to be more eye-catching but were thought to be less impressive and less informative than nonhumorous ones. Most of the findings concerning comparative ads were negative.

YAGADE, AILEEN, & DOZIER, DAVID M. (1990, Spring). The media agenda-setting effect of concrete versus abstract issues. *Journalism Quarterly, 67,* 3-10.

Hypothesizes that the amount of media coverage affects the perceived salience of concrete issues while the amount of media coverage does not affect the perceived salience of abstract issues. This research consists of two separate studies: (1) testing whether issues (nuclear arms race, federal deficit, drug abuse, energy) vary in perceived abstractness, and (2) content analyzing of *Time* to provide a measure of the public agenda. In the first study a questionnaire was administered to 79 undergraduates to test the abstraction of each issue. In the second study a content analysis of *Time* was made on the concrete issue of energy and the abstract issue of nuclear arms during 39 week periods. All nonadvertising content was coded from 313 issues. Spearman rank-order correlation coefficients were computed between number of column inches and public agenda measures. It was concluded that concreteness increases news media agenda-setting power and abstractness decreases it.

LAVRAKAS, PAUL J., & HOLLEY, JACK K. (1989, Spring). Images of daily newspapers in their local markets. *Newspaper Research Journal, 10* (3), 51-60.

Assesses credibility of newspapers in six markets and compares results with those of a similar ASNE national 1985 survey. Random-digit dialing telephone surveys were conducted in each market, the sample sizes ranging from 403 to 525 with completion rates ranging from 63-85%. The variables measured included items on readership patterns and interests, newspaper image, and demographics. Image attributes measured were the reporters' care about people, attitudes toward powerful people, treatment of mistakes, accuracy, and sensationalism. Overall, the image of these newspapers within their own local situations was consistently higher than shown in the national study. A greater proportion of subjects in lower status occupations showed a negative view toward their local newspapers. Those expressing relatively less satisfaction with life in their area held more negative views of their newspaper.

EBERHARD, WALLACE B. (1989, Autumn). Soldiers reflect on coverage of wars at turn of century. *Journalism Quarterly, 66,* 706-710.

Focuses on two aspects of communication during three conflicts (Spanish-American War, Philippine Insurrection, Boxer Rebellion) the United States was involved in at the turn of the century: contacts with correspondents and the quality of news coverage. Material for this study came from a research undertaking in the 1960s from a 10-page questionnaire completed by approximately 800 surviving veterans of this period. Of these, approximately 350 had usable information on the questions of this study. Favorable comments about the kind of newspaper and magazine coverage were made by 36 veterans; unfavorable, 24. Few publications were mentioned by name, *Collier's* being an exception. More than anything, the veterans remembered the dearth of newspapers or magazines and the long time it took to receive them from home. For most, reporters were tangential to combat.

NAGY, ALEX. (1990, Spring). Word wars at home: U.S. response to World War II propaganda. *Journalism Quarterly, 67,* 207-213.

Studies how the U.S. Post Office reacted to an influx of political propaganda from abroad, especially from the Soviet Union, prior to and during World War II. Generally this propaganda consisted of mass-produced materials designed for mass distribution to promote some current Communist claim and included special appeals to different audiences. The Espionage Act of 1917 and the Foreign Agents Regulation Act required those mailing propaganda to the United States to register with the government, a requirement offending the Soviet Union. The U.S. Post Office was empowered to evaluate, stop, and burn incoming materials. Soviet materials did not fare well throughout the war. In all, the Post Office was responsible for burning 50 tons of materials, despite concerns of some about book burning.

DUIN, ANNE H.; ROEN, DUANE H.; & GRAVES, MICHAEL F. (1988). Excellence or malpractice: The effects of headlines on readers' recall and biases. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in Literacy Research* (pp. 245-250). Chicago, IL: National Reading Conference.

Reports on how positive versus negative newspaper headlines affect readers' recall and biases. Fifty-four college students enrolled in an upper division writing course were assigned to read an editorial preceded by either a positive or a negative headline. Immediately after reading, the students were asked to write what they remembered from the article and respond to an open-ended attitude survey. Two days later, subjects completed the semantic differential scales (seven items). Results on total recall, positive recall, and negative recall showed no differences between the two groups. Recall of the editorial was approximately 30% for either group. The delayed attitudinal measure (scales) indicated that students who received the positive headline responded more positively than the other group. The discussion centers on the delayed effects headlines have on readers.

III-16 Research techniques

BALDASSARE, MARK, & KATZ, CHERYL. (1989, Winter). Who will talk to reporters? Biases in survey reinterviews. *Journalism Quarterly, 66,* 907-912, 1049.

Analyzes the size and demographic characteristics of a reinterview sample and of those who refuse to participate in reinterviews. The data base consisted of eight telephone surveys, differing in length and topic, conducted for California newspapers in 1987 and 1988. All interviews included a question concerning whether subjects would be willing to be reinterviewed by a newspaper reporter and the same demographic questions. The information from these surveys was merged, totaling 4,809 subjects. On the average, 31% were willing to be reinterviewed and to have their names in the papers; 69% refused. Willingness to be reinterviewed declined as age increased. Subjects in the 18- to 34-year-old group were twice as likely to consent as the 55-year-old group. Men were more likely to agree to a reinterview than were women. The reinterview rate increased with income increases. Willingness was low in all demographic categories. A significant relation was found between willingness and survey location but not between length of interviews or the sample base of general population versus registered voters.

IV. Physiology and psychology of reading

IV-1 Physiology of reading

Bruyer, R., & Janlin, D. (1989, August). Lateral differences in lexical access: Word length vs. stimulus length. *Brain and Language, 37*, 258-265.

Asks whether word length (defined in terms of the number of letters in a word) affects laterality in word processing differently from word length (defined in terms of distance between the left most and right most end of the word). Subjects were 36 young adult females randomly assigned to three conditions: imageable words, nonimageable words, and pronounceable nonwords. Within each category, each subject twice was shown sets of 4 letter stimuli, 4 letter stimuli lengthened by blank spaces so that they matched 7 letter stimuli in length (enlarged words), and 7 letter stimuli. For each trial, stimuli were exposed in pairs of equal lengths for 150 mscs, with the subjects being cued to report the stimulus appearing to the right or left of fixation point. A 2 visual field (right visual field, left visual field) X 3 kind of word (4 letter, 4 letter enlarged, 7 letter) X 2 order of report (first, second) ANOVA applied to each condition category indicated visual length is determined by number of letters. The view that the right visual field has an advantage for word recognition was supported. Imageability tended to affect the hemifield X length effect.

Chiarello, Christine, & Nuding, Sarah. (1987). Visual field effects for processing content and function words. *Neuropsychologia, 25*(3), 539-548.

Uses two experiments in investigating the processing of content and function words when input to the right vs the left hemisphere. Experiment 1 compared visual field asymmetries for content and function words using lexical decision and naming tasks. Experiment 2 compared acceptability judgments for function vs content word phrases. For Experiment 1, subjects were 48 right-handed undergraduate students, 24 of whom served as subjects for Experiment 2. Stimuli for the first experiments consisted of 30 content words, 30 function words, and 60 pronounceable nonwords. Stimuli appeared on a computer screen randomly to LVF or RVF, while subjects were told to maintain their gaze at a centrally placed cross. Subjects were placed into one of two conditions: naming or lexical decision. The naming group were to pronounce each word as quickly as possible; the lexical decision group were to register word/nonword decisions as quickly and accurately as possible. Wordclass effects were not found in the RVF; there was no RVF advantage for recognizing content words. Findings did not support the view that content and function words are differentially accessed only in the left hemisphere. In the second experiment, stimuli consisted of 80 two-word phrases, half of two content words and half of a function and content word. Subjects were to press a button indicating whether the phrase was good (grammatical) or bad (ungrammatical). Content and function phrase acceptability judgments were not differentiated in either VF. It was concluded that grammaticality judgments may be predominantly processed in the left hemisphere.

Kelly, Mary S.; Best, Catherine T.; & Kirk, Ursula. (1989). Cognitive processing deficits in reading disabilities: A prefrontal cortical hypothesis. *Brain and Cognition, 11*, 275-293.

Examines the roles of prefrontal and posterior brain regions in boys who are RD. Participants in the study were 17 boys who were reading at least 1½ years below their expected grade level, and 18 boys who scored average to above average on an achievement test. All subjects were in the 12-year-old range and came from middle class families. The subjects were administered four published measures of prefrontal and four of posterior brain function. Testing sessions lasted approximately one hour during school. Discriminant analysis procedures applied to various measures given determined prefrontal measures to best distinguish between RD and nondisabled (ND) boys. Difficulties with cognitive functions involving sustained attention, inhibition, set maintentance, and flexibility in generating hypotheses were more apparent in RD than ND children.

SOLAN, HAROLD A.; SUTIJA VESNA G.; FICARRA, ANTHONY P.; & WURST, STEPHEN A. (1990, February). Binocular advantage and visual processing in dyslexic and control children as measured by visual evoked potentials. *Optometry and Vision Science, 67,* 105-11C.

Records visual evoked potentials (VEPs) in examining (1) differences between dyslexic and control children in terms of binocular advantage, and (2) differences in the P100 VEP amplitudes in the visual cortex between dyslexics and controls. Subjects included 14 dyslexic children (mean CA, 9 years; mean WISC-R IQ, 94) and 14 control children (mean CA, 10.5 years; mean WISC-R IQ, 113). With electrodes attached, each subject sat in a chair and looked at a checkerboard pattern displayed on a screen and was asked to fixate the point in the center of the screen and keep the image in focus. Stimuli were viewed under monocular and binocular conditions. Stimuli were contrast-reversing checkerboard patterns of two different check sizes and at two different reversal rates, with contrast and mean luminance level held constant. Control children demonstrated larger monocular and binocular overall amplitudes of the major positive peak of the VEP waveform than did dyslexics. However, the magnitude of binocular advantage was higher for dyslexics than for controls. Stimulus factors had an effect, but did not interact with reading ability.

GROSSER, GEORGE S., & SPAFFORD, CAROL S. (1989, June). Perceptual evidence for an anomalous distribution of rods and cones in the retinas of dyslexics: A new hypothesis. *Perceptual and Motor Skills, 68,* 683-698.

Compares dyslexic and normal subjects' abilities to determine the presence of color in their peripheral retinas. Fourteen college students who had been diagnosed as dyslexic were matched with 14 good readers from the same college on age, sex, SES, and IQ. Each subject's eyes were tested, one at a time, on the Coherent Ocuplot Automatic Visual Field Screener. Four colors were presented in a randomized series at eight angular settings. Subjects were asked to indicate when specific color presentations came into peripheral view as they maintained a central fixation point. Good readers were seldom able to detect colors beyond 20 degrees from fixation point while dyslexics made most detections at well beyond 20 degrees. Thus, dyslexics tended to detect color in the periphery, while good readers' identifications were centrally located. The differential distribution of rods and cones in the retinas of dyslexics and good readers is inferred.

WOLFF, PETER H.; MICHEL, GEORGE F.; OVRUT, MARSHA; & DRAKE, CHARLES. (1990, May). Rate and timing precision of motor coordination in developmental dyslexia. *Developmental Psychology, 26,* 349-359.

Examines adolescent and adult dyslexics, matched controls, and LD adolescents on bimanual coordination tasks. Subjects were 25 males and 25 females, ages 13 to 18 years, enrolled in a residential school for reading impaired students of normal intelligence; 41 men, ages 18 to 32, who were recruited from a residential college for young dyslexic adults; 50 LD adolescent students without current or past reading difficulties who were matched with dyslexics for age, sex, IQ, and SES; normal control students, matched with dyslexics for age, sex, SES and IQs in the 95-110 range; and 41 college students matched with dyslexic adults by sex and age. Subjects were to tap the index fingers of both hands to the beat of a metronome at each of three prescribed rates in unison, in rhythmical alteration, or in more complex bimanual patterns. Dyslexics demonstrated significant deficits of timing precision on bimanual tasks that require the integration of asynchronous responses, but not when they moved the fingers in unison. It was felt that the motor deficit might be an outward manifestation of a developmentally stable and physiologically plausible deficit that impinges on the timing control of speech and language processes in a subgroup of dyslexic subjects.

IV-2 Sex differences

Olson, Arthur, & Davies, Anne. (1989, April). The influence of gender differences on story retellings. *Reading, 23*, 32-38.

Asks whether there are sex differences to be noted in the retelling of a story. Included were 96 children from grades 3 and 6, all of whom were reading at their grade level or above. Children were asked to read a short story silently and then their retelling was recorded. Transcribed recalls were analyzed by comparing the number and placement of T-units in the recall with those in the original text. In addition, several other cognitive processing behaviors were studied. Generally, there were significant sex differences in performance. Boys were more productive and appeared more creative than the girls. Boys and girls did not differ significantly in terms of syntactic and semantic structures used in retelling. Third grade boys made more judgmental statements about the story than did third grade girls. More boys than girls made statements indicating they were searching for meaning by adding information from their experience.

Many, Joyce E. (1989, Fall). Sex roles from a child's point of view: An analysis of children's writing. *Reading Psychology, 10*, 357-370.

Explores the writing samples of children in grades K-12. Samples were submitted by the subjects, all of whom were winners of a contest for young authors. Papers from 17 males and 17 females were sampled at each of three levels. Characters in the written pieces were tabulated for gender, for attributes categorized as physical or personal/ability, and for the roles of family or occupation they were assigned by the writers. Significant effects were found for sex of author and sex of character. Male authors wrote about male characters and assigned males a greater number of attributes and a greater variety of roles. Female authors wrote about females more frequently than they did about males. The number of roles assigned was significantly affected by the grade level and sex of the author and the sex of the character. Including occupational roles increased as the age of the author increased. Few occupational roles were assigned to female characters. It was concluded that some of the differences are attributable to stereotypic treatment of the sexes while others are better explained through developmental changes associated with age.

Cahn, Lorynne E. (1988, Fall). Sex differences in learning rate in an intensive summer reading clinic. *Reading Improvement, 25*, 196-201.

Explores the hypothesis that sex differences in reading rate occur in small group instruction given by female teachers in an intensive summer reading clinic program. Data were collected from clientele served in the reading clinic. Records were reviewed of 684 children who had been instructed during a 9-year period. About 15% of the children had been placed in developmental reading groups, while the rest were classified as remedial. A battery of tests was used in the evaluation, including the Nelson Reading Test, the GMRT, and the Spache DRT. Girls outperformed boys on all measures.

DeFries, J.C. (1989, November). Gender ratios in children with reading disability and their affected relatives: A commentary. *Journal of Learning Disabilities, 22*, 544-545.

Analyzes consistent patterns of results in past research on gender ratios in children with reading disabilities (RD). The author suggests that a gender directed theory that explains transmission of RD in families also predicts a higher gender ratio for index subjects in a study than for their affected relatives. In addition, this theory predicts a greater risk for relatives of index females than males.

KOLSTAD, ROSEMARIE K.; HAMMACK, BARBARA; & JERNIGAN, MARY. (1990, Spring). Reading readiness is related to neither peer age nor sex. *Reading Improvement, 27,* 55-57.

Examines the relation between maturational development and reading readiness. Subjects were 64 male and 64 female kindergartners from six schools. At the beginning of school, children ranged in age from 5-0 to 5-11. For purposes of the study, children were assigned to one of two groups based on whether they were above or below 5-7 at the start of school. At the end of school, readiness was individually tested on Clay's Concepts About Print tests. Tabulated data were analyzed using a 2(sex) X 2(CA) ANOVA. Findings indicated no significant differences in reading readiness between sexes and age groups.

IV-3 Intellectual abilities and reading

DIXON, PETER; LEFEVRE, JO-ANNE; & TWILLEY, LESLIE C. (1988, December). Word knowledge and working memory as predictors of reading skill. *Journal of Educational Psychology, 80,* 465-472.

Assesses the value of three working memory capacity measures and three word knowledge measures as predictors of reading performance on three reading measures. Subjects were 95 Canadian undergraduates. Reading performance was assessed on the NDRT, a test of inferencing ability, and a reading speed measure; word knowledge was determined by a standardized vocabulary test, a number-of-meanings task, and a lexical decision task. Memory capacity was evaluated on the Reading Span Test (RST), a standard digit span test, and a word recall task. Of the three correlation coefficients pertaining to the reading performance measures, only the one between reading rate and reading comprehension reached significance. Regarding measures of word knowledge, the only substantial coefficients were obtained between the lexical decision and the vocabulary measure. The three memory measures were all substantially intercorrelated. Regression analyses were used to determine the unique contribution to reading comprehension of the various predictors being considered. Of the predictors tested, working memory efficiency contributed significantly to reading comprehension, while working memory capacity on the RST contributed to reading speed. Word knowledge was found to impact significantly on text inferencing skill. The results support the notion that reading comprehension is a multidimensional variable that cannot be represented by one test score.

MONROE, EULA E.; WATSON, ARDEN K.; & TWEDDELL, DEBRA C. (1989, Fall). Relationships among communication apprehension, reading achievement, teacher-perceived communication apprehension, and intelligence. *Journal of Reading Education, 15*(1), 10-20.

Explores the relations among self-reported communication apprehension, teacher perception of pupil communication apprehension, intelligence, and reading achievement. Subjects were 244 elementary pupils, ages 7 to 12. Subjects completed a Personal Report of Communication Fear (PRCF). Teachers completed a Communication Apprehension Behavior Inventory (CABI) on the pupils. Data were also obtained from the Total Reading Subtest of the CTBS and from the Test of Cognitive Skills. Stepwise multiple regression procedures were used to investigate relations, with reading achievement score serving as the criterion variable. The best predictor model consisted of IQ and CABI. Significant correlations were found between intelligence and reading achievement (p <.0001), teacher perception and reading (p<.0001), communication apprehension and teacher perception of communication apprehension (p<.001), and teacher perception and intelligence (p<.001).

WHITE, C. STEPHEN. (1989). Vocabulary knowledge and geometric analogy reasoning: Nature and the degree of relationship. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 189-196). Chicago, IL: National Reading Conference.

Examines the relation between vocabulary knowledge and analogical reasoning in primary grade children from varying SES and cultural backgrounds. Participants were 108 children, ages 4, 5, and 6, from seven sites in three states representative of gender, ethnicity (white, black, Hispanic), and SES (low, middle, high). Subjects were administered the PPVT and the Test of Analogical Reasoning in Children (TARC). Vocabulary knowledge was determined to have a significant effect on children's ability to perform analogical reasoning tasks. PPVT performance was a better predictor (.22) of the TARC than other predictor variables (age, gender, SES, ethnicity) entered into the simultaneous regression model.

STREETER, LYNN A., & VITELLO, DIANE. (1986, April). A profile of drivers' map-reading abilities. *Human Factors, 28*, 223-239.

Reports two experiments on aspects of map reading abilities in adults. In the first experiment, 33 females, ages 18 to 66, were administered a battery of cognitive tests, a self-appraisal questionnaire of navigational ability, a map experience questionnaire, and a questionnaire on navigational habits and preferences. The self-appraisal questionnaire contained 15 items on which subjects were to rate themselves on a 9-point scale as to their sense of direction, map-reading ability, fondness for maps, ability to follow verbal directions, and memory for routes. The self-reports of navigational proficiency were correlated with some of the cognitive ability measures such as spatial ability. Subjects were divided into high and low ability groups based on scores on the cognitive measures. Low ability individuals relied on landmarks and preferred verbal directions as opposed to spatial ones. Experiment 2 compared expert, experienced, and novice groups on their ability to select appropriate routes on maps. Each subject in the expert and novice groups received 12 maps and were asked to trace a route to a final destination on each. Individuals not familiar with the area on the maps made more map-reading errors than did the other groups. The three groups differed in the routes they selected. Experts' routes were shorter than the routes selected by either of the other two groups.

IV-4 Modes of learning

PENNEY, CATHERINE G. (1989, August). Modality effects in delayed free recall and recognition: Visual is better than auditory. *Quarterly Journal of Experimental Psychology, 41A*, 455-470.

Examines visual and auditory modality effects on delayed free recall and recognition of word lists. Subjects were 32 university students who volunteered. The subjects were divided into two equal groups, each of which was asked to perform different tasks as eight lists of 12 monosyllabic words were presented on audiotape (auditorially), or on slides (visually). With each list, one group was asked to silently generate a rhyming word for each presented word, while the other was asked to generate a free associate. Upon completion of each list's presentation, subjects were asked to recall the words on the list or the words that had been generated. Within each group, stimulus materials, presentation modalities, and lists were counterbalanced to eliminate order effect. A final recall task required subjects to write words previously presented. This was followed by a recognition task requiring subjects to circle the original words displayed within an array of unpresented words. ANOVA procedures applied to the data revealed modality effects on immediate recall, final recall, and final recognition. Visual presentation surpassed auditory presentation in eliciting word recall and recognition.

WILMETTE, THOMAS L., & EARLY, GEORGE H. (1985, December). Abilities of normal and reading-disabled children to combine the visual and auditory modalities with dimensions of space and time. *Perceptual and Motor Skills, 61*, 1295-1298.

Studies and compares the performance for normal and RD children on vocal reproduction of visual spatial-temporal, visual-temporal, and auditory-temporal presentations of stimulus patterns. Subjects included 162 normal and 83 RD children, identified by scores on the SAT or on the Prereading Skills Composite of the MAT. All had IQs of 90 or better on the Otis-Lennon Mental Ability Test; CAs ranged from 6 to 12 years. Three subtests of a test purported to assess abilities of children to make different modality and dimensional combinations were administered and analyzed. Visual spatial-temporal input was superior to the other subtests. Auditory temporal input was superior to visual temporal input. Additional data analyses indicated a significant difference between the means of the normal and RD groups on all three subtests, with normal children performing better on all three. The authors concluded that spatial and temporal dimensions need to be considered in research designs.

CARIGLIA-BULL, TERESA, & PRESSLEY, MICHAEL. (1990, June). Short-term memory differences between children predict imagery effects when sentences are read. *Journal of Experimental Child Psychology, 49*, 384-398.

Investigates the effects of short-term memory, age, and reading ability on benefits produced by imagery instruction during sentence reading. Subjects were 165 fourth-, fifth-, and sixth-grade children from two schools in middle to upper class neighborhoods in a Canadian metropolitan area. The children were randomly assigned to the imagery and control conditions, with equal numbers of boys and girls at each grade level. Children were individually tested for short-term memory capacity, and group tested on the GMRT comprehension subtest. Two sets of 10 sentences, each sentence containing four units of information, were devised for the experiment. Under timed conditions, children in the experimental and control conditions were asked to orally read sentences from one or the other set as each sentence was displayed alone on a card. Children in the experimental group were told to "make a picture in their head for the sentence," while those in the control group were told to "try really hard to remember the sentences." After reading the 10 sentences, children in both groups were cued to recall each sentence in the set and probed for information units not mentioned. For each sentence, a quarter point was given for each information unit recalled. Analyses revealed no between group differences in performance on the three predictor variables (age, GMRT, and short-term memory). Imagery instruction produced a positive effect on sentence learning efficiency of children with greater short-term memory capacity, but no difference for children below the median for short-term memory.

BARNHART, RONALD, & GLENBERG, ARTHUR. (1990, January). Extension of the picture-superiority effect over multiple lists. *Bulletin of the Psychonomic Society, 28*, 1-3.

Compares differences in recall of pictures and written words when introduced in successive lists. Subjects were 144 university undergraduates fulfilling requirements for an introductory psychology course. Each subject was shown slides of concepts rendered as line drawings (pictures) or as printed words. For each subject, the slides were grouped within six list sets: three lists containing pictures and three sets containing words. Presentation of lists was accomplished in three conditions: short list/fast rate, short list/slow rate, and long list/

slow rate. Short list conditions presented only 12 items while long list conditions presented 24; fast rate presentation was at 1.5 sec per item, while slow rate was at 3.0 sec. Presentations also included counterbalancing features to avoid order and list effects. A 3 length/rate X 2 order of modality X 3 order of list X 2 list sets ANOVA performed on the data resulted in a main effect for modality with better performance for pictures over written words. No interaction effects were apparent. Shorter lists and slower presentations lead to better results.

BAJO, MARIA-TERESA. (1988, October). Semantic facilitation with pictures and words. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14*, 579-589.

Investigates the role of processing level and strategic factors in producing picture-word facilitation effects in two experiments where modality of the prime and modality of the target were manipulated. Experiment 1 investigated processing level in the pattern of within and cross-form facilitation across two tasks of name and category verification. Experiment 2 extended the investigation of picture-word facilitation and explored the role of strategic factors in producing the facilitation. Factors were manipulated by varying the type of instructions and the blocking of picture and word stimuli in a standard naming task. Subjects in Experiment 1 were 32 students enrolled in introductory psychology classes. Sixty-four subjects participated in Experiment 2. Semantic facilitation depended on the subjects' personal strategies and the nature of the task. Equivalent facilitation was obtained across all modality combinations when the task required processing of both picture and word targets. When the task required name processing, facilitation was obtained for picture targets. With word targets, however, facilitation was obtained when semantic processing was stressed. Evidence for differential access to the semantic and phonetic representations for pictures and words was thus obtained in both experiments.

ROYER, JAMES M.; SINATRA, GALE M.; & SCHUMER, HARRY. (1990, April). Patterns of individual differences in the development of listening and reading comprehension. *Contemporary Educational Psychology, 15*, 183-196.

Examines the development of reading and listening comprehension over one year's time. Subjects who participated throughout the span of the study were 30 third and 45 fourth graders from three schools in a blue collar community. Subjects' listening and reading comprehension were assessed by means of the Sentence Verification Technique (SVT) at the end of the school year, at the beginning of the next school year, and at the end of the second school year. Following the final administration of the SVT, subjects were assigned to top, middle, and low reading achievement groups on the basis of their performance on the CTBS. ANOVA procedures applied to the listening and reading SVT tests indicated pupils in fourth grade scored higher than those in third grade and top readers scored higher than middle and low readers. Listening performance grew steadily over the three test occasions while reading performance remained constant on the second test occasion, but showed significant growth on the third occasion. The authors consider the SVT a viable measure of listening and reading comprehension. Moreover, they consider listening and reading comprehension ability to develop independently, with instruction having more of an influence on reading than on listening.

MILLER, SAMUEL D., & SMITH, DONALD E. (1990, Winter). Relations among oral reading, silent reading, and listening comprehension of students at differing competency levels. *Reading Research and Instruction, 29*, 73-84.

Explores differences in the comprehension performance of children of varying reading abilities in three alternative modes: listening, oral reading, and silent reading. The sample was drawn from grades 3, 4, and 5 in a single elementary suburban school. The 83 pupils (46 males and 37 females) were from middle and upper-middle SES families. Each subject was tested individually using three equivalent forms of test passages and questions written at the child's grade placement level and taken from the Analytical Reading Inventory. The child was asked to read one passage orally and one silently, and the third was read to him or her by the examiner. Six questions (both literal and inferential) were posed and answered orally for each test passage. To identify levels of competence, total reading scores (oral and silent) were ranked and divided into thirds, resulting in identification of 32 low achieving readers, 19 average readers, and 32 high achieving readers. A repeated measures ANOVA yielded several differences. For low readers, listening comprehension was equal to oral reading comprehension and both were superior to silent reading comprehension. For average readers, listening comprehension was equal to silent and both were superior to oral. For high achieving readers, oral comprehension was equal to silent and both were superior to listening.

Burgess, Curt; Tanenhaus, Michael K.; & Seidenberg, Mark S. (1989, July). Context and lexical access: Implications of nonword interference for lexical ambiguity resolution. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *15*, 620-632.

Presents five experiments designed to study the effects of contextual information on lexical decisions to misspelled nonword targets. Subjects in all experiments were native English speaking university students. Experiment 1 examined whether ambiguous words prime nonword targets in the absence of biasing contextual information. Experiment 2 compared latencies on related ambiguous trials with latencies for two types of unrelated control trials. Experiment 3 replicated Experiment 2 with a cross-modal presentation. Experiment 4 determined whether the ambiguous words in Experiments 2 and 3 facilitated lexical decisions when the related nonword targets were replaced by the words from which they were derived. Experiment 5 replicated an earlier experiment with two changes: nonword targets were presented one word earlier and ambiguous words were replaced with a word semantically unrelated to the target but consistent with the context. The researchers concluded that interference derives from judgments of the congruence of sentence context and target, not the influence of ambiguous or unambiguous priming words on the target. Results suggested that the nonword interference task is sensitive to postlexical integration processes and is not an appropriate tool for investigating questions concerning contextual effects on lexical processing.

IV-5 Experiments in learning

Boesch, Stephanie, & Standing, Lionel. (1990, March). Word/picture interference effects in free recall. *Bulletin of the Psychonomic Society*, *28*, 109-111.

Investigates how a second learning task coming between the primary learning task and recall effects memory for pictures, concrete words, and abstract words. Subjects were 90 psychology students randomly assigned to one of three primary learning tasks: pictures, concrete nouns, or abstract nouns. The same types of materials were given as secondary learning tasks. Subjects were given three successive tests of 30 items each, with each test using the same type of primary material but a different type of secondary material. Subjects first viewed the primary task items, followed by the secondary task items, and then attempted to recall the primary list in two minutes and the secondary list in another two minutes. In general it was found that the mutual interference between two successive learning tasks was greatest when the two involved the same type of material. However, recall of concrete words was depressed when the word list was preceded by a picture-learning task.

Rayner, Keith, & Springer, Carla J. (1986, May). Graphemic and semantic similarity effects in the picture-word interference task. *British Journal of Psychology, 77*, 207-222.

Conducts two experiments into the effects of the picture-word interference task. Experiment 1 was conducted to examine the relation between graphemic and semantic features in the picture-word interference task. Eight adults from a university were paid to participate. Categorical attributes of printed words were manipulated factorially with graphemic features, and the time that the stimulus picture was exposed was varied. Stimuli consisted of 10 black-and-white drawings, each with a 3-, 4-, or 5-letter label that was a frequent word. In one condition, the picture label and superimposed print matched; in the picture-only condition, the picture was presented without any accompanying word; eight other label conditions were presented in which the letter, word shape, or semantic category was manipulated. In Experiment 2, print could either precede, be simultaneous with, or follow the presentation of a picture. Subjects were 12 adults from a university community who were paid to participate. A printed word from the same category as the object resulted in greater interference than did a printed word not from the category of the object. Graphemic similarity between the printed word and the picture label reduced the size of the category effect. It was concluded that much of the interference in the picture-word interference task could be localized in the semantic evaluation stage, and that the task may be most useful in determining the points at which word processing and picture processing overlap and merge.

Begg, Ian; Snider, Andrea; Foley, Finola; & Goddard, Robert. (1989, September). The generation effect is no artifact: Generating makes words distinctive. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 977-989.

Reports four experiments designed to investigate two questions about the generation effect (the effect where items generated from fragments are remembered better than items that are read from complete lists): When does the effect occur? and Why does it do so? Subjects were undergraduate students enrolled in introductory psychology classes at a Canadian university. Experiment 1 investigated the generation effect between subjects, determining whether words are remembered better by the people who generate them or by the people who read them. Pairs of related words were presented in four ways: pure readers, total generation, partial generation, and fragments. Experiment 2 examined generation effects in recognition of targets and recall of contexts, given targets as cues. Generated targets were recognized better than targets read in the same list or in a pure list. Experiment 3 examined the generation effect in recognition of targets and contexts, and recall of each cued by the other. Findings confirmed the other experiments showing benefits in recognition and recall of generated targets but not their contexts. Experiment 4 simplified and altered procedures of Experiment 3. Results confirmed those of Experiment 3.

West, Richard F., & Stanovich, Keith E. (1988, March). The neutral condition in sentence context experiments: Empirical studies. *Bulletin of the Psychonomic Society, 26*, 87-90.

Gives results of five experiments in which comparisons were made between different neutral conditions used in sentence context experiments. Subjects were undergraduate volunteers from a psychology pool and numbered between 16 and 72 for the various experiments. In general, there was a tendency for the neutral sentence fragment "the next word will be" to give faster word-naming times than three other neutral conditions: "they said it was the," randomized strings of words, and strings of Xs. Across all experiments, all of the neutral conditions tended to show either facilitation-dominant patterns or relatively equal amounts of facilitation and inhibition.

Sinclair, Grant P.; Healy, Alice F.; & Bourne, Lyle E., Jr. (1989, May). Facilitating text memory with additional processing opportunities in rapid sequential reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 418-431.

Reports three experiments that use rapid sequential visual presentation (RSVP) display formats in an effort to determine (1) whether interphase pauses facilitate comprehension, (2) the importance of total processing time on comprehension, and (3) whether a fill-in-the-blank procedure provides useful information beyond traditional text comprehension/memory testing methods. Subjects in the three experiments included 36, 72, and 48 introductory psychology students, respectively. Experiment 1 compared two RSVP formats, stationary and moving, under three pause conditions. In two conditions, pauses were placed either after every meaningful unit or arbitrarily and in equal number throughout the text. Condition three was a control with no pauses occurring within the text. Subjects read six paragraphs presented in one of the two formats. In all three experiments, results suggested that memory for specific text is facilitated when additional processing time is provided. Of the two formats, the word-by-word fixed location format gave the more efficient performance. The fill-in-the-blank method of assessing memory for specific text appeared to be more sensitive to manipulations of text presentation variables than did the multiple-choice test. In all experiments, the meaningful fill-in-the-blank procedure resulted in a higher proportion of correct responses than did the arbitrary ones, no matter where the pauses were placed. Where pauses were placed was not as important as total time to read.

Duffy, Susan A.; Henderson, John M.; & Morris, Robin K. (1989, September). Semantic facilitation of lexical access during sentence processing. *Journal of Experimental Psychology; Learning, Memory, and Cognition, 15*, 791-801.

Studies the mechanisms by which lexical access for a particular word is affected by context of preceding sentence. In three experiments, contexts were presented by using a rapid serial visual presentation. Subjects (college students) were to name the last word of the presented sentence. Naming time served as the dependent measure. In Experiments 1 and 2, content words of each sentence were replaced with a variety of neutral words to investigate the contribution of each word to the overall facilitation of sentence contexts. Congruent, incongruent, and neutral conditions were produced. Facilitation was observed for a fully congruent context containing subjects and verbs that were weakly related to the target word. No facilitation was observed when subjects or verbs were replaced with more neutral words. Facilitation was not due to priming from any specific content word or to summing activation. In Experiment 3, facilitation was observed when full congruent contexts were modified to preserve or to disrupt the original relation between subject and verb, suggesting that facilitation occurred as a result of a combination of context words within the lexicon rather than the integration of sentence meaning at the message level. Combinations of the content words seem to prime the target word in the absence of priming by any of the items individually.

Neely, James H.; Keefe, Dennis E.; & Ross, Kent L. (1989, November). Semantic priming in the lexical decision task: Roles of prospective prime-generated expectancies and retrospective semantic matching. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 1003-1019.

Compares the magnitudes of the relatedness proportion effects obtained for high- and low-category-dominance exemplars in a lexical decision task (Experiment 1), and examines implications of how a postlexical semantic matching process might lead to increases in semantic priming in the lexical decision task as the relatedness proportion increases. Subjects included in Experiment 1 were 108 students enrolled in an introductory psychology course; Experiment 2 included 408 similar subjects. In both conditions, subjects' response times were recorded as they completed tasks presented on a computer. This study applied a lexical decision task with category names as primes and with high- and low-dominance exemplars as targets. It was found that semantic priming for high-dominance exemplars was modulated by the relatedness proportion and, to a lesser degree, by a nonword ratio. However, the nonword ratio exerted a stronger influence than did the relatedness proportion on semantic priming for low-dominance exemplars and on the nonword facilitation effect (i.e., the superiority in performance for nonword targets that follow a category name rather than a neutral prime). The results suggested that semantic priming for lexical decisions is affected by both a prospective prime-generated expectancy, modulated by the relatedness proportion, and a retrospective target/prime semantic matching process, modulated by the nonword ratio.

CARR, THOMAS H.; BROWN, JOSEPH S.; & CHARALAMBOUS, ALKISTIS. (1989, September). Repetition and reading: Perceptual encoding mechanisms are very abstract but not very interactive. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 763-778.

Presents four studies investigating transfer of repetition effects across changes in the context and surface form of words being read aloud in order to diagnose the degree of abstraction at which perceptual encoding operations take place during reading. In each experiment, undergraduates read short texts aloud twice, with the second text occurrence either identical to the first or different. In Experiment 1, text was scrambled; in Experiment 2, variations included manipulating surface form with typing or naturally generated handwriting; in Experiment 3, unfamiliar pseudowords replaced nouns, verbs, adjectives, and adverbs; and in Experiment 4, participants were given explicit expectations that surface form would or would not match in order to assess strategic effects of episodic memories if a subject believed such information would be helpful to performance. Results suggested consistent support for an abstractionist account of perceptual recognition in oral reading. Benefits of repetition were undiminished by scrambling, by typographical manipulation, by pseudowords, or by changes in surface form even when readers expected surface form to remain the same. Results suggest that components of word processing sensitive to surface form and to repetition operate independently of syntactic parsing, proposition formation, and attended expectations.

KARDASH, CAROL ANNE M., & KROEKER, TIRZA L. (1989, October). Effects of time of review and test expectancy on learning from text. *Contemporary Educational Psychology, 14*, 323-335.

Varies placement of a review period prior to 48-hour delayed testing to determine when review of notes is most helpful and whether the effectiveness and placement of optimal review period depends on the nature of the criterion measure. Subjects were 156 undergraduates enrolled in introductory educational psychology classes. Text materials were two expository texts over 300 words in length. Each subject completed a free recall, a cloze test, and an application test for each of the two passages. Students were assigned to one of five review conditions: (1) at acquisition, (2) 1 day after acquisition, (3) review prior to test, (4) mental review prior to test, or (5) no review. Directions varied before each task to determine whether elaborative or verbatim notes would be differentially effective with the task. Review placement influenced free recall performance, but had no effect on cloze or application test performances. Subjects who reviewed notes prior to testing performed better than subjects who reviewed 1 day after acquisition, reviewed at acquisition, did not review, or reviewed mentally prior to the test. Varying expectancy did not enhance performance on criterion measures but did produce a difference in the proportions of idea units from the passages that students recorded in their notes. Students who processed a passage under the rote expectancy recorded a higher proportion of idea units than those under the application expectancy. Most students reported using the same strategies to review their notes even though the testing expectancy was different.

Greeson, Larry E. (1989, Spring). Modeling and mental imagery use by preschool children as a function of age, task type, and instructional set. *Journal of Mental Imagery, 13*, 39-42.

Investigates preschool children's ability to use modeling-based imagery or verbal elaboration to facilitate learning. Subjects were 66 middle-class children from a private nursery school. A design was employed that consisted of two age groups (older vs. younger), two task types (picture vs. word pairs), and three instructional tasks (imagery vs. verbal elaboration vs. control). After completion of familiarization and trial study-recall learning task procedures, subjects in the imagery condition were told to study pairs of pictures or words by imagining and drawing pictures that put the items together; subjects in the verbal elaboration condition were told to study pairs of pictures or words by making up and reciting sentences; and control subjects were told to complete rote rehearsal tasks. To assess recall, subjects given picture pairs were asked to draw correct responses while subjects given word pairs were asked to name correct responses. ANOVA procedures revealed significant effects of instructional set for eliciting elaboration responses during study trials. Older children used elaborations most often with picture pairs when imagery instruction was used and with word pairs when verbal elaboration instruction was used. Younger children, by contrast, used elaborations most often in the word pair/imagery instruction condition. Age or instructional set did not benefit recall significantly, though word pairs resulted in better recall than picture pairs.

de Groot, Annette M.B. (1989, September). Representational aspects of word imageability and word frequency as assessed through word association. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 824-845.

Reports eight experiments assessing the effects of word imageability and word frequency in semantic memory. Subjects in all studies were university students in the Netherlands. All experiments used a corpus of Dutch words. Experiments 1 and 2 employed a discrete free word association task, and Experiment 3 used a continued free word association task. Experiments 4-8 examined why frequency had not influenced performance in the earlier experiments. Experiment 4 studied lexical decision making; Experiment 5 assessed word pronunciation. Experiments 6-8 grew out of findings of the other studies and focused on the process of association retrieval. Experiments 1-3 showed that word imageability strongly effects word association while word frequency does not. Experiments 4 and 5 determined that word frequency effects on the word recognition stage in word association did not interfere with word frequency in the association-retrieval stage. In Experiments 6-8 with word frequency classes further apart, small effects were found on word association retrieval. Concept nodes for high-imageability words contained more information than did nodes for words of low-imageability. Implications are drawn for network models of memory.

van Dam, Gerrit; Brinkerink-Carlier, Michele; & Kok, Ineke. (1986, Spring). Influence of visual and verbal embellishment on free recall of the paragraphs of a text. *American Journal of Psychology, 99*, 103-110.

Notes the effect of the concurrent application of visual and verbal enrichment on recall. Subjects were 51 male and 57 female undergraduate psychology students who were placed in one of nine text conditions. Materials consisted of a 20 paragraph expository text treated so that there was simultaneous manipulation of two variables at three levels each. Either the even-, the odd-numbered, or none of the paragraphs were embellished by the addition of verbal details or illustrations. Embellishment was done by adding of content-enriching details to the relevant scenes, thereby doubling their length. Subjects studied their version for 10 minutes with the admonition that they would be asked to recall it. Fifteen minutes after completing their study, their recalls were tape recorded. Visual and verbal embellishment of half of the paragraphs seemed to facilitate recall of the embellished paragraphs at the expense of free recall of the unembellished ones.

SCRUGGS, THOMAS E., & MASTROPIERI, MARGO A. (1989, Summer). Reconstructive elaborations: A model for content area learning. *American Educational Research Journal, 26,* 311-327.

Assesses the effects of reconstructive elaborations on the immediate and delayed learning of disabled learners in social studies content. Subjects were 30 junior high and high school students classified as LD (n=28) or mildly mentally handicapped (MMH) and attending special classes as well as mainstream content area classes. The mean WJPEP grade score for reading was 5.2; the mean Key Math score was 5.9; and the WISC-R IQ was 86.4. Students were stratified by grade level and randomly assigned to experimental or control conditions; all students participated individually in instructional sessions of 28 minutes, using materials from a history text written at the sixth grade level of difficulty. Materials used in the two conditions were paralleled with respect to the order of item presentation (specifics to be learned), the content covered, the textual information for all items, and the number of pages. Experimental group materials contained eight each of three different reconstructive elaborations: mimetic (for meaningful-concrete items), symbolic (for meaningful-abstract items), and acoustic (for nonmeaningful, unfamiliar stimuli). Effects on learning were assessed using two tests administered to all subjects. The first was a production test of 26 directed questions covering the major facts; the second was a delayed recall test employing multiple-choice and matching formats to assess the same content. For the immediate production test, data were entered into a MANOVA with the four item types serving as dependent variables. Experimental group students outperformed controls by a factor of nearly 2:1. Obtained mean-difference effect sizes indicated that the effect sizes increased as the level of meaningfulness and concreteness decreased. Total scores on the delayed test were compared by means of a t-test. Students in the experimental condition again evidenced superior performance.

GURI-ROZENBLIT, SARAH. (1988, April/June). Impact of diagrams on recalling sequential elements in expository texts. *Reading Psychology, 9,* 121-139.

Examines the effect of manipulating verbal and schematic representations of social science text on the recall of sequential relations by 256 Israeli undergraduate students. A 4,000 word text explaining the application of a communication model to the marketing process was prepared in four versions: (1) the original text; (2) the added diagram text, where a diagram was included in the text without including a verbal explanation; (3) the explained diagram version, where the verbal explanation was changed to incorporate a description of the diagram; and (4) the elaborated text version, where the original text version was modified and restructured. A test consisting of 20 multiple-choice items testing text main ideas and three open-ended questions followed. Verbal and visual aptitude tests were administered, using a test specifically designed for Israeli adults, and an Israeli standardization of the Minnesota Perception Diagnostic Test. ANOVAs did not yield significant differences among groups on the aptitude tests. Covariance analysis of the total score yielded a significant difference between the groups reading the text with the diagrams and with the verbal versions. There was also a significant difference between the added diagram group and the explained diagram group. There was no difference between the original text group and the elaborate text group. Main effects for the treatment variable were found on types of scores. Findings suggest that diagrams assist recall of sequential relations and clarify the application of the model to the process in both question types.

Prior, Victoria. (1989, Winter). Do illustrations have any effect on comprehension of written prose at the fourth reader level. *New England Reading Association Journal*, *25*(1), 2-6.

Asks whether illustrations affect comprehension of text at the fourth reader level. A selection from a basal series was presented in three modes: original, a copy of the original in black and white only, and a copy of the text only. A total of 87 pupils were given one of the three formats and asked to read the story and then answer a 12-question test immediately after reading and two weeks later. The questions included 8 factual, 2 inferential, and 2 vocabulary items. Little differences were noted among groups for either the immediate or delayed recall scores.

Horton, Steven V.; Lovitt, Thomas C.; & Bergerud, Donna. (1990, January). The effectiveness of graphic organizers for three classifications of secondary students in content area classes. *Journal of Learning Disabilities*, *23*, 12-22, 29.

Investigates the effectiveness of graphic organizers for three classifications of secondary students enrolled in content area classes: students with learning disabilities, remedial students, and students in regular education. Questions addressed were: (1) are graphic organizers more effective than a self-study condition; (2) do graphic organizers produce consistent effects in middle school and high school across a variety of content area classes; and (3) can teachers successfully implement graphic organizers with heterogeneous groups through teacher-directed and student-directed procedures. Experiment 1 investigated the effectiveness of a teacher-directed graphic organizer with text references; Experiment 2 examined a student-directed graphic organizer with text references; and Experiment 3 involved a student-directed graphic organizer with a list of clues. Each study demonstrated that graphic organizers produced significantly higher performance for all categories of students enrolled in social studies, science, and health classes at the secondary level. Across all experiments, LD students averaged 70% correct with graphic organizers and 20% correct with self study; remedial students averaged 74% with graphic organizers and 42% correct with self study; and regular education students averaged 86% correct with graphic organizers and 56% correct with self study. Graphic organizers, whether teacher-directed, student-directed with text references, or student-directed with clues, produced significantly higher performance than self-study for each group of students.

Glover, John A.; Krug, Damon; Dietzer, Margaret; George, Byron W.; & Hannon, Shawn Mitchell. (1990, January). "Advance" advance organizers. *Bulletin of the Psychonomic Society*, *28*, 4-6.

Assesses, in two experiments, whether organizer effectiveness is influenced by time delays between reading of the organizer and reading of the text to be learned. Subjects for the study were elementary education majors participating for course credit: 96 for Experiment 1, and 60 for Experiment 2. For both experiments, subjects were asked to read and paraphrase in writing an organizer to an essay they would subsequently read. Subjects then read the essays immediately, after a one-hour delay, or after a 48-hour delay. A control condition, in which no organizer was given before the reading, was implemented in each experiment. A free recall test given to each subject after each essay reading was scored by two independent raters for number of idea units recalled. For each set of essays the average score of the two raters was tabulated and submitted to orthogonal ANOVA procedures. For both experiments, findings indicated significant differences in favor of the experimental conditions over the control conditions. Recall in the one-hour delay condition substantially exceeded recall in either the 48-hour delay or immediate condition.

McEneany, John E. (1990, Winter). Do advance organizers facilitate learning?

A review of subsumption theory. *Journal of Research and Development in Education, 23*, 89-96.
Critiques four studies conducted by Ausubel and his coauthors to evaluate their research-based support for the efficacy of advance organizers in promoting learning. Detailed were serious criticisms of research procedures and findings that delimit the conclusions of the studies. It was suggested that there is no consistent evidence across the four studies in support of the efficacy of advance organizers. In addition, it was suggested that a number of predictions and theoretical concepts basic to subsumption theory were not supported by the findings reported. The author concluded that there is reason to doubt that advance organizers can promote learning and further asserted that a reappraisal of Ausubel's subsumption theory is warranted.

Krug, Damon; George, Byron; Hannon, Shawn A.; & Glover, John A. (1989, April). The effect of outlines and headings on readers' recall of text. *Contemporary Educational Psychology, 14*, 111-123.

Reports the results of three experiments conducted with undergraduate education majors to examine how the use of outlines and headings influenced recall of text. In Experiment 1, recall was assessed in four conditions: (1) when an outline prefaced the essay, (2) when headings were embedded in the text, (3) when an outline prefaced the essay with embedded headings in the text, and (4) a read only control group. Subjects read at their own pace without looking back before completing a written recall at their own rates. Subjects in the combined condition of headings and outlines recalled significantly more content than in any of the other conditions. Experiment 2 replicated Experiment 1, but used a longer, less contrived text. Again, subjects in the combined condition recalled more content than subjects in any other condition. Subjects in each of the other conditions outperformed subjects in the control group. In Experiment 3, subjects were again given materials with outlines prefacing text and headings interspersed. After reading, they were required to organize paraphrased statements from the text into the order in which they appeared in the text. Subjects who read an outline prior to reading the text ordered the paraphrased sentences more accurately than those who did not. Reading the headings inserted in the text did not add to the benefit obtained by reading the outline. The examiners suggest that outlines help the reader with text organization, while headings did not.

Walczyk, Jeffrey J., & Hall, Vernon C. (1989, September). Effects of examples and embedded questions on the accuracy of comprehension self-assessments. *Journal of Educational Psychology, 81*, 435-437.

Evaluates the effects of illustrative examples and embedded questions in expository text on the accuracy of students' comprehension-monitoring self-assessments. Subjects were 60 volunteers from an introductory college psychology subject pool who were randomly assigned to one of four study conditions: text, text with examples, text with questions, and text with examples and questions. The original text offered many examples of concepts; a contrast passage included all information crucial for understanding the text, but all examples were removed. For the question condition, a question was inserted for each paragraph; these questions were designed to require students to elaborate, summarize, make inferences, or contrast ideas. Students were allowed to study until they felt ready to take a 25-question, multiple-choice, comprehension test on the chapter content from memory. Before taking the test, subjects indicated on a 6-point scale the degree to which they understood the material; following completion of the text, they indicated their estimate of how well they had done on another 6-point scale (test prediction). Effects were examined using 2 (examples vs. no examples) by 2 (questions vs. no questions) ANOVAs. The dependent variables were comprehension assessments, test scores, and test predictions. Subjects reading text with examples rated their comprehension as being higher than those not offered examples. Although students tended to have higher comprehension scores in conditions involving examples and questions, there was only a marginally significant main effect for examples. There were no other significant main effects or interactions. Finally, calibration of comprehension was assessed by correlating test scores with assessments and predictions across the 15 subjects in each condition. Subjects who encountered examples and questions in text exhibited better calibration than other investigators have observed.

GLOVER, JOHN A. (1989, Spring). Improving readers' estimates of learning from text: The role of inserted questions. *Reading Research and Instruction, 28*(3), 68-75.

Reports the results of two experiments designed to examine the effect of inserted questions in text with and without feedback on students' estimates of posttest performance. An additional focus of study was the differential effects of inserted knowledge and analysis level questions on students' estimates of performance. Experiment 1 studied the effect of inserting knowledge level questions and included 45 high school juniors and seniors attending a university laboratory school who were randomly assigned to one of three conditions: inserted questions, inserted questions with feedback, and read only control. Subjects in each group read a 2,000-word essay constructed so that approximately 200 words appeared on each page. For the inserted questions groups, one multiple-choice, knowledge level question was presented following each page of reading, allowing a total of 10 inserted questions. Students in the feedback condition were given the correct answer to each inserted question on the page immediately following the question. All students then were given a sample test item and were asked to give their best estimate (from 0 to 20) of the number of posttest questions they thought they could answer correctly. A comprehension deviation score was calculated for each student by subtracting the actual test score from the estimated test score. Students in the inserted questions plus feedback condition made significantly more accurate estimates of test performance than students in the other two conditions. In addition, students in the inserted questions condition made significantly more accurate estimates of future test performance than students in the control condition. Experiment 2 examined the impact of using higher order questions and included 60 college freshman assigned randomly to three conditions: inserted analysis level questions, inserted knowledge level questions, and read only control. The materials and procedures applied in Experiment 1 were replicated; however, students in both experimental conditions received feedback for their responses to inserted questions. Students in the analysis level condition made significantly more accurate predictions of their performance than students in either of the other two conditions. Likewise, students in the knowledge level condition were significantly more accurate in estimating their performance than students in the control group. On posttest performance, students in the analysis level condition scored significantly higher than students in the other two conditions, and students in the knowledge level condition scored significantly higher than students in the control condition.

HAYES, DAVID A. (1989, Spring/Summer). Directing prose learning with analogical study guides. *Forum for Reading, 20*, 20-24.

Tests the effectiveness of structured, analogical study guides by comparing their impact on students' learning of factual information with the learning outcomes of two unstructured activities, essay writing and self-questioning. The subjects were 31 undergraduate women majoring in English education. Materials to be studied were three pairs of encyclopedia articles with a study guide to accompany each set. Each pair of articles was comprised of a passage describing an unfamiliar athletic game and a passage describing a familiar, analogous game. Prior to the study, students' knowledge of the familiar games was assessed on a 75-item, true-false test. The students were randomly divided into three groups for comparison in a restictively randomized quasi experiment under a 3 (treatment) × 3 (texts) factorial design. The three treatments were administered without time limits during two-hour class sessions. The order of treatments was the same for all students: the use of study guides providing analogies, the application of self-formulated questions, and the writing of compare-contrast descriptions. Three days after treatments had been administered, the students took a 150-item recognition test designed to cover equally content presented in the three pairs of articles. The results were analyzed using ANCOVA procedures in which the pretest scores were the covariate. The analysis revealed no significant interaction effects, nor any main effect due to text; the analysis did show main effects associated with the study tasks. Performance on test items from texts that had been studied with study guides was superior to performance on items studied by self-questioning and by composing compare-contrast descriptions. Likewise, performance resulting from the composition task was significantly better than test performance associated with the self-questioning task.

NIST, SHERRIE L., & KIRBY, KATIE. (1989, Fall). The text marking patterns of college students. *Reading Psychology, 10,* 321-338.

Studies the patterns observed in the text markings of college students. Ten used textbooks for introductory level courses in history, political science, and sociology were examined. The 30 texts were selected on the basis of three criteria: apparent ownership by only one student, appearance of some kind of marking throughout the text, and apparent use by only one instructor. No information was available regarding the students who marked the texts or the faculty who taught the courses in which the books were used. The texts were divided into thirds for analysis purposes. Each text was examined page by page, focusing on the types of information marked and the patterns of marking. A summary sheet listing 12 different marking categories (e.g., first sentences, boldface terms alone, details, examples, headings, and subheadings) was used to facilitate the process. Descriptive statistics and ANOVA procedures were used to determine differences in marking patterns both within the same text-types and between different text-types. The results indicated significant differences between text-types on only 2 of the 12 variables (first sentences and names/dates), indicating little differential marking between text-types. Overall, students tended to mark too little, rather than too much information. Much of what was marked included random ideas that would serve no purpose in preparing for exams. Some students targeted only key ideas and some only details, but whatever their pattern, they tended to employ it consistently throughout the text. While more key ideas were marked in an effective way in the first third of the three different text-types, as students progressed through the texts, their markings became scanter and less effective.

BLANCHARD, JAY, & MIKKELSON, VINCENT. (1987, March/April). Underlining performance outcomes in expository text. *Journal of Educational Research, 80,* 197-201.

Proposes to investigate the performance outcomes from underlining anticipated by students. The 84 undergraduates from two universities were divided into above average, average, and below average reading achievement groups on the basis of NDRT scores. Within each reading level, subjects were further divided into those who took less than or more than 30 minutes to complete the study of a 2,400-word expository text via computer display. As students scrolled through the text, they could underline any segments they wished to up to a total of 24 sentences. A 25-question probed-recall test was then administered, assessing textually explicit recall of text content by means of written responses. ANOVA procedures were used in analyzing data. Underlining was a more successful technique for better readers than for less able readers. Students were able to comprehend and recall about 50% of their underlined text content, regardless of study time and reading achievement levels.

Charles, Walter G., & Miller, George A. (1989, September). Contexts of antonymous adjectives. *Applied Psycholinguistics, 10*, 357-375.

Presents three experiments with college students using the method of sorting to compare sets of adjectival contexts. Experiments 1 and 2 compare the context of direct and indirect antonyms to determine if contexts for direct antonyms are more similar and harder to discriminate than contexts of indirect antonyms. Sets of contexts were compared for direct antonyms *strong/weak* and indirect antonyms *powerful/faint*. Experiment 2 used direct antonyms *public/private* and indirect controls *open/secret*. Results suggested that direct antonyms were not freely interchangeable in sentential contexts. Experiment 3 used a third sorting using noun phrases, rather than sentences as contexts. Only the contexts for the directly antonymous pairs *strong/weak* and *public/private* were used. Contexts of directly antonymous adjectives were found to be highly discriminable, both with sentential and phrasal contexts, leading the researchers to conclude that words with different meanings normally appear in discriminably different contexts and that the cue for learning to associate direct antonyms is their frequent co-occurrence in the same sentence.

Wilson, John E., & Weinstein, Claire E. (1989, February/March). Identifying and evaluating potential instructional components for high school learning strategies programs. *The High School Journal, 72*(3), 136-142.

Samples 20 experts in the field of learning strategies and study skills to identify what learning strategy components should be included in high school programs and to rank these components by importance. Experts were chosen from college and university settings, public schools, military research institutions, government agencies, and commercial publishing firms. Over a six-month period, these experts participated in a three-round modified Delphi Technique to develop a consensus of the most important components, as identified in the research literature. In round one, each expert ranked the importance of each item on a five-point Likert scale. Forty-one components were identified as important to extremely important. With the second round, respondents were asked to select 10 and rank and prioritize them from the first round summary data. In the third round, respondents again identified and ranked 12 skills they felt necessary for learning/study skills courses when data from the first two rounds were presented. Respondents who disagreed with the majority were given opportunities to reevaluate and change positions or to preserve their original thinking. Final rankings for importance were: (1) notetaking, (2) goal setting, (3) selecting main idea, (4) time management, (5) problem solving, (6) concentration/attention, (7) test readiness, (8) student questioning, (9) inference, (10) self-directional processes, (11) verbal elaboration, and (12) imaginal elaboration.

McNeil, John D. (1989, Fall). Personal meanings versus test-driven responses to social studies texts. *Reading Psychology, 10*, 311-319.

Examines whether junior high school students are building meanings from their textbooks and deriving information from texts with tests in mind. Fifty teachers in five junior high schools administered a set of questions to five of their top- and five of their bottom-ability students immediately after students read an independent reading assignment. Subjects were asked to write what they should remember from the text for a test and what was important enough to want to remember always. Thirty different texts were used in the different schools. A total of 322 students indicated information to be remembered for a test, and 344 students stated what was important enough to remember always. A sample of 84 papers was selected for content analysis. Typical responses for test preparation were specific facts that might be asked for recall. Typical responses for personal importance suggested integration of new knowledge with general knowledge and generation of high level propositions. Students seemed to find personal signficance in what they read.

Schmidt, Henk G.; De Volder, Maurice L.; De Grave, Willem S.; Moust, Jos H.C.; & Patel, Vimla L. (1989, December). Explanatory models in the processing of science text: The role of prior knowledge activation through small-group discussion. *Journal of Educational Psychology, 81*, 610-619.

Reports two experiments designed to assess the effects of the activation of prior knowledge through small-group discussion in the context of science study. In Experiment 1, 39 college students whose academic background included biology, were randomly assigned to either an experimental or a control condition. Both groups were then subdivided into three small groups of about equal size. The groups were presented with either a blood cell problem (experimental) or airplane problem (control) and directed to propose explanations. A free recall test that required subjects to write everything they could about the subject of osmosis then was administered. Numbers of correct propositions, descriptive propositions, and explanatory propositions were determined. Subjects who analyzed the blood cell problem produced significantly more propositions related to osmosis than did subjects in the control group. No significant difference was found between the number of descriptive and the number of explanatory propositions produced. Experiment 2 considered the question of whether problem analysis prior to the processing of a relevant text facilitates the comprehension of information from that text for both novice and expert students. Subjects were 88 students from a Dutch secondary school. Materials and procedures applied in the first experiment were repeated. In addition, after the group discussions, subjects read/studied a six-page text on osmosis and diffusion, and then on a free recall test wrote all they could about the topics. Findings confirmed that a significantly greater number of propositions was correctly recalled by the experts; however, the interaction effect between treatment and level of expertise was not significant. When the total number of propositions recalled was further analyzed into explanatory and descriptive propositions, it was demonstrated that the treatment had influenced only the recall of explanatory information from text. No differences were found for descriptions.

Ferguson, Eva Dreikurs. (1988, May). Motivational influences on word recognition: I. Foveal and parafoveal viewing. *Bulletin of the Psychonomic Society, 26*, 203-205.

Addresses, in two experiments, the question of whether hunger motivation facilitates word processing for parafoveally viewed words as well as for foveally viewed words. Subjects were 20 undergraduate volunteers in each experiment. Within each experiment, subjects were randomly assigned to either refrain from eating for 12 hours preceding testing or to eat a large meal within one hour prior to testing. In Experiment 2 subjects were tested twice, half were tested first hungry and then satiated, and half followed the opposite sequence. Other than testing twice in Experiment 2, procedures were identical for foveal viewing (Experiment 1) and parafoveal viewing (Experiment 2). For foveal viewing, hunger facilitated word recognition, but overt responding was not significantly faster. Food words were not recognized significantly earlier by hungry than by satiated subjects. Under parafoveal viewing, no significant motivation effects occurred.

Hall, Richard, H.; Dansereau, Donald F.; O'Donnell, Angela M.; & Skaggs, Lisa P. (1989, June). The effect of textual errors on dyadic and individual learning. *Journal of Reading Behavior, 21*, 127-140.

Attempts to assess the effects of textual errors on the learning of college students who studied dyadically and individually. Participants were 104 students recruited from undergraduate psychology classes. The Delta Reading Vocabulary Test (DRVT) was administered, and students were randomly assigned to experimental groups (dyad and individual) with an equivalent number of males and females in each group. Those in the dyad group were further divided into same-sex dyads. The experiment was conducted in three sessions of approximately two hours each. Students were taught a four-step learning strategy and then were directed to study a text passage according to their assigned condition, either dyadically or individually. Half of the passages within both conditions contained syntactic errors. Students were asked (1) to recall the number of errors and the sections of the text that contained errors, (2) to rank the difficulty of each of the sections of the text, (3) to complete free-recall tests over all the material studied, and (4) to complete subjective graphs of their motivation and interest over the course of studying. ANCOVA techniques, using the DRVT score as the covariate, revealed that dyads performed better than individuals on recall of text in sections not containing errors, whereas the groups did not differ on recall of the material in text sections that did contain errors. In addition, dyads outscored individuals on measures of recall of error location, error frequency, and perceived difficulty of the text sections which contained errors. The analysis of the subjective graphing of motivation and interest indicated that motivation was strongly related to recall. Dyads were significantly more motivated overall than were individuals.

Natsopoulos, Dimitris, & Xeromeritou, Aphrodite. (1989, March). Verbal abilities of left- and right-handed children. *Journal of Psychology, 123*, 121-132.

Examines the relation between handedness and seven linguistic abilities in primary grade Greek children. Thirty-eight left-handed and 39 right-handed children between the ages of 6 and 7 were selected from a pool of 550 primary school pupils with similar SES backgrounds. Handedness was determined by asking questions pertaining to hand preference and by observing hand preferences elicited by various commands. Seven linguistic abilities were assessed by various formal and informal means. These included: 1) receptive vocabulary, 2) syntactic development, 3) listening comprehension of narrative, 4) solving of three term series problems, 5) conceptual similarity, 6) familiarization with similes, and 7) word association ability. ANOVA procedures applied to a 2×7 factorial design indicated no significant effects for handedness or for the seven linguistic tasks suggesting left- and right-handed children do not differ in verbal ability.

IV-6 Auditory perception

Elliott, Lois L.; Scholl, Margo E.; Grant, James O.; & Hammer, Michael A. (1990, April). Perception of gated, highly familiar spoken monosyllabic nouns by children with and without learning disabilities. *Journal of Learning Disabilities, 23*, 248-252.

Compares auditory closure and word retrieval ability of LD and normally achieving (NA) children. Subjects were 18 children, ages 8 to 12 years, from a summer camp for LD children matched with NA children on age and gender. Sampling procedures also provided for control in terms of auditory acuity, auditory discrimination, and receptive vocabulary between groups. Each subject was presented with the forward portions of 20 monosyllabic concrete nouns (the gates) via recording. Three trials on each gate were given, each of a successively longer duration than the former, and the subject was asked to respond with the completed word after each trial. The duration time at which each subject first correctly reported the stimulus word without changing his/her mind was recorded. If the subject did not recognize the word item after three trials, the total duration time for the three trials plus 60 msec were recorded as the duration score for that item. Gating task outcomes revealed that although the duration time required for word identification was not significantly different between groups, NA children generally identified approximately one more word than LD children. Response strategies, as reflected by different meaningful word and nonword responses were similar for both groups. Higher receptive vocabulary scores were positively correlated with better performance on the gating task for only LD children. However, children with LD exhibited poorer fine grained auditory discrimination than a control group of NA children.

IV-7 Visual perception

Gambrell, Linda, & Bales, Ruby. (1987, August). Visual imagery: A strategy for enhancing listening, reading, and writing. *Australian Journal of Reading, 10*, 147-153.

Gives a brief overview of the research indicating that mental imagery plays a positive role in the listening, reading, and writing comprehension of elementary age children. Briefly reviews the research relevant to classroom practice and then gives practical suggestions for using visual imagery to enhance comprehension.

Nairne, James. S. (1988, April). The mnemonic value of perceptual identification. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14*, 248-255.

Cites four experiments, all with undergraduate psychology students as subjects, designed to examine the mnemonic value of perceptual identification. In all experiments subjects were asked to name words appearing on a CRT screen. On generate trials, the words were presented rapidly at a point where about half could be identified correctly; on read trials, the items were presented for one second, allowing for fast and easy identification. A surprise recognition test for the presented items showed a substantial retention advantage for the briefly presented items, but no similar advantage was found for recall. The author argues that under rapid viewing conditions, subjects may fail to extract enough visual features to allow for immediate resolution, thereby requiring the initiation of a kind of data-driven generation process. This process then results in a generation effect for the briefly presented items compared with the read item, but only on a retention test that shows sensitivity to data-driven processing.

Brewer, William F. (1988). Postscript: Imagery and text genre. *Text, 8* (4), 431-438.

Provides preliminary data on the relation of mental imagery to text genre. Subjects were 49 undergraduate students who participated for course credit. Materials consisted of seven short passages: two descriptive physical, two narrative, two abstract expository, and one physical expository. Subjects received a booklet containing one story and a set of imagery rating scales. The scales first asked the subject whether any mental imagery had been experienced while reading the passage; in the event of a positive response, each subject then filled out five imagery rating scales. Analysis of the data indicated that descriptive and narrative texts tended to give imagery, while abstract expository texts did not.

Elshout, J.J., & Langereis, M.P. (1988, October). The content of orthographic images of second and third graders. *Psychological Reports*, *68*, 651-655.

Replicates and extends an earlier study of the content of orthographic images of beginning readers. Subjects were 40 second and 16 third graders assigned to good or poor spelling groups on the basis of a spelling test administered prior to the experiment. Each subject was asked to: (1) pronounce 10 Dutch words from one of two lists, (2) participate in a filler decoding task, and (3) take a surprise-recall task which assessed subjects' ability to remember if certain letters were present in specific Dutch words previously pronounced. Controlling for letter position, words were judged for the presence of pronounced letters, silent letters, or absent letters. Surprise-recall task data were analyzed in a 2 (good vs. poor spellers) × 2 (early vs. late prompt position) ANOVA. The only significant main effect was that of prompt position. Both good and poor spellers possess orthographic images with silent and pronounced letters being equally represented in lexical memory.

IV-8 Reading and language abilities

Spiegel, Dixie Lee, & Fitzgerald, Jill. (1990, February). Textual cohesion and coherence in children's writing revisited. *Research in the Teaching of English*, *24*, 48-66.

Extends an earlier study on the relations between cohesion and coherence in children's writing and studies the degree to which the relations vary with quality of writing, story content, and grade level. Two stories written by the 27 third graders and 22 sixth graders from the earlier study were scored for coherence, quality and 11 cohesion variables. The coherence measure varied from the previous study where a multidimensional, holistic measure was used that included seven facets of coherence. In the present study, a cohesive harmony index was used to analyze the linguistic features of the text. Quality was scored using a holistic rating scale for seven dimensions of narrative writing. Analyses of covariance were run, with coherence as the dependent variable, and grade, quality, and cohesion were the independent variables. There was a significant relation between cohesion and coherence, with the relation varying with text content. The relation between cohesion and coherence did not, however, vary with quality of writing or grade level. The cohesive harmony index did not correlate with quality, number of cohesive errors, or the holistic rating of coherence in highly predictable ways. Results of the second study are compared and contrasted with results from the first study. The researchers conclude that cohesion and coherence appear to be related, but the nature of the relation is still unclear.

Cox, Beverly, E.; Shanahan, Timothy; & Sulzby, Elizabeth. (1990, Winter). Good and poor elementary readers' use of cohesion in writing. *Reading Research Quarterly*, *23*, 47-65.

Examines the relation between 48 third- and fifth-grade midwest suburban children's reading performance and their use of cohesion in writing when writing stories and reports for children of the same age. Subjects were randomly selected from pupils in each grade who scored high or low on the ITBS. From each subject, two narrative stories and two expository reports were analyzed for appropriate or inappropriate use of cohesive ties and for overall cohesive harmony. Also explored was whether differences in use of cohesion related to grade level or to reading comprehension ability, to the genre of writing, or to the quality of writing when writing was judged holistically. Data were collected over four sessions, all involving both discussion of ideas and writing. Papers were parsed into T-units and then examined for appropriate cohesive harmony. Fifth graders and good readers used appropriate cohesive ties significantly more frequently in both genres of writing than did others. In their narrative writing, fifth graders and good readers used significantly more harmonic cohesion. In expository writing, however, grade level differences were not significant, although good readers outscored poorer readers. Cohesive harmony appeared to be a more consistent index of writing quality than frequency of cohesive ties. Results suggest that knowledge of cohesion is related to children's developing reading skills.

Simons, Herbert D., & Ammon, Paul. (1989, December). Child knowledge and primerese text: Mismatches and miscues. *Research in the Teaching of English*, *23*, 380-398.

Reports a qualitative analysis of miscues collected from first graders who read either primerese or rewritten versions of basal selections. Subjects were matched on a word recognition test of words taken from the stories to be read, and on the comprehension subtest of the SAT. Subjects read four stories in sessions over a two-week period. Stories were presented with the accompanying illustrations. All stories were read orally and followed by 10 comprehension questions. Transcripts of reading were coded for miscues. Examples are included to demonstrate miscues resulting from controls on vocabulary, from controls on sentence length, and from overdependence on punctuation. The researchers conclude that vocabulary and sentence control results in a textbook kind of language that is poorly matched with the linguistic expectations of children.

Purcell-Gates, Victoria. (1989). Written language knowledge held by low SES innercity children entering kindergarten. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 95-105). Chicago, IL: National Reading Conference.

Assesses the knowledge of written language held by low income innercity children as they begin kindergarten. Sampled were 35 low income children who were randomly selected from three kindergarten classrooms in three innercity schools. With the exception of one child, the children could not read or write independently. Six domains of written language were assessed using informal researcher-designed probes: intentionality, story structure knowledge, written narrative register, alphabetic principle, concepts about writing, and concepts about print. Results suggested that the children possessed a very restricted view of written language. For these children, written language was associated with school exclusively. Their limited experiences with written narrative appear to influence both the conceptions of and readiness for literacy-related activities.

Wolf, Dennie, & Hicks, Deborah. (1989, July/September). The voices within narratives: The development of intertextuality in young children's stories. *Discourse Processes, 12*, 329-351.

Uses examples from longitudinal observations of the narrative stories that four children, ages 3 to 7, create to demonstrate that children tell narratives that are more than sequential and that they contain rich varieties of linguistic features. By age 3, the children represented had at least three voices in their stories: stage-managing, character dialogue, and narrative. Separate voices were distinguished through use of pronouns and sentence types. Between the ages of 3 and 5, children gained more control of the temporal systems of language and marked distinctions among the voices in their play narratives. Between the ages of 5 and 6, children showed plurifunctionality of voices, and embedded multiple functions within voices. There was an increasing adeptness in manipulating linguistic forms with age. Sociocultural differences were detected, although many linguistic capacities were similar for children of varying socioeconomic backgrounds.

Dahl, Karin L. (1989). The construction of knowledge about written language by low SES learners during their kindergarten year. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 107-116). Chicago, IL: National Reading Conference.

Describes how low SES children with restricted views of written language interpreted literacy instruction during a kindergarten year. Twelve low SES children were randomly selected from a sample of 36 subjects who were tested for their entering knowledge of written language. The children came from three elementary schools and different kindergarten classrooms. Classroom observations of the three schools took place two to three days a week for eight months, totaling 347 hours of observational data. Field notes were coded for patterns of

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behavior such as asking questions and reading attempts, and later described as teacher-versus self-initiated events. During teacher-directed activities, children spent most of their time following directions and completing paper-pencil tasks. During self-sponsored events, children asked questions and explored various literacy activities. Concepts about reading focused on letters which appeared to be curriculum driven.

Chaney, Carolyn. (1989, September). I pledge a legiance tothe flag: Three studies in word segmentation. *Applied Psycholinguistics*, *10*, 261-281.

Explores the development of children's metalinguistic awareness of words as units of language, different from phonemes, syllables, phrases, or sentences. Experiment 1 assesses whether subjects could segment speech into component words, what strategies they use, and how segmentation varies with word abstractness. Experiment 2 changed the segmentation tasks but kept the target words from the first study. Experiment 3 explored segmentation of functor words, determining whether subjects could differentiate between functor words and phonetically similar embedded syllables, and whether success varied with the specific functor. Also of interest were differences in functor use from prekindergarten to kindergarten and whether meta-knowledge of functors is related to emergence of literacy. In Experiments 1 and 2, subjects were 34 children ranging from 4.7 to 6.1 years old in a prekindergarten class. Children recited the Pledge of Allegiance and materials about a stegosaurus dinosaur and segmented names. In Experiment 3, with a different group of 76 children, subjects were given two- and three-word phrases and asked to repeat them, with corrective feedback given. Overall results suggested that growth from 4½ to 6½ is vigorous, with children using increasingly complex phrasal, syllabic, and full word strategies. Subjects demonstrated a growing knowledge of functors, as well as content words. Functors vary in difficulty and sequence resulting from differences in stress, ambiguity with phonetically similar embedded syllables, semantic complexity, and salience of reference to the child.

Ulijn, Jan M., & Strother, Judith B. (1990, February). The effect of syntactic simplification on reading EST tests as L1 and L2. *Journal of Research in Reading*, *13*, 38-54.

Studies the effect of syntactic simplification of English texts written for the domain of science and technology (EST) to determine if simplification affects reading comprehension. Also investigated were the effects of background knowledge and language knowledge. Four groups of subjects were tested, 24 native computer science majors and 24 native humanities majors from the United States and 24 nonnative Dutch computer science majors and 24 nonnative humanities majors in the Netherlands. Subjects were enrolled in three universities, two Dutch and one American. Those considered experts in computer science were in their third or fourth year of computer study. Nonexperts were those majoring in humanities. Ten 1-sentence passages from a computer science article were rewritten to maintain the same content load while simplifying the syntax. Ten true-false questions followed. A 2 × 2 × 2 ANOVA with repeated measures was conducted, with dependent variables being the number of answers correct and the time of reading. Syntactic simplification did not have a significant effect on reading comprehension, but background knowledge and language knowledge did. Knowledge of computer science did help the subjects comprehend significantly better, and Dutch students had higher scores than did the Americans. There was an important effect of language knowledge on reading times, with Americans reading nearly twice as rapidly as the Dutch subjects. The researchers concluded that syntactic simplification of the EST was not a real simplification for these subjects.

Bensoussan, Marsha, & Kreindler, Isabelle. (1990, February). Improving advanced reading comprehension in a foreign language: Summaries vs. short-answer questions. *Journal of Research in Reading*, *13*, 55-68.

Explores whether Israeli university students trained in summarizing improved comprehension more than university students trained in responding to short-answer questions. Background data also were collected to identify possible nonlinguistic factors affecting reading comprehension. Subjects were students enrolled in six classes of English as a foreign language. Subjects read texts in English. Three classes answered short-answer questions, with each question focused on a macrolevel proposition. The other three classes wrote summaries. Three class periods were allocated to teaching the strategies assessed. Classroom procedures for discussion after writing were similar for all classes. Data were collected from homework assignments, final written tests, composite grades, scores on placement tests of English, and the summaries or short-answer questions. Results suggested that all students improved their scores between pre- and posttests. Scores for groups with short-answer questions were higher than for summary students; however, writing summaries seemed to help students read more efficiently. MANOVA results indicated the conjoint effects of three factors: task, gender, and native language (Hebrew or Arabic), and significant effects between these factors and mean scores in English homework and end of semester English scores. The final grade in the English course was also affected by native language and the interaction between task and native language. Language in which students responded did not affect scores.

HAGUE, SALLY A. (1989). Awareness of text structure: The question of transfer from L1 and L2. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 55-64). Chicago, IL: National Reading Conference.

Looks at whether an awareness of text structure is a skill that transfers from the first language (L1) to the second language (L2) and whether such a skill affects the reading comprehension of L2. Subjects were 62 students in grades 10-12 enrolled in their fourth year of Spanish as a foreign language in a large urban school district. Three pretests were administered: the SAT, Modern Language Cooperative Foreign Language Test, and a test designed to assess awareness of four text structures in English. Subjects were randomly assigned to one of four conditions: comparison passage, problem/solution passage, causation passage, and collection of descriptions passage. These four passages in Spanish contained the same content but took on a different text structure. Students were asked to read the passage followed by a free recall test and a delayed recall test one week later. Tests were scored for congruency of text structure and the number of idea units. No differences were found in English reading ability and the level of text structure awareness in Spanish. Significant differences were found in Spanish reading ability in second language, supporting the conclusion that knowledge of text structures transfer from one language to another.

OAKLAND, THOMAS; DE MESQUITA, PAUL; & BUCKLEY, KEVIN. (1988, August). Psychological, linguistic, and sociocultural correlates of reading among Mexican American elementary students. *School Psychology International*, 9, 219-228.

Examines the influence of various linguistic variables as well as field dependence-independence on reading achievement among Mexican American pupils. Subjects were 128 Mexican American children randomly selected from a major school district in Texas. Two age groups (younger or 7 and 8 years old, and older or 10 and 11 year olds), each containing 32 boys and 32 girls, were formed. A variety of standardized instruments were administered to assess levels of receptive vocabulary, expressive vocabulary, grammatic closure, auditory blending, language dominance, family acculturation, SES, MA, field dependence-independence, as well as word recognition and reading comprehension. Analysis of field dependence-independence revealed no gender effects. However, older children were significantly more field independent than younger children. Similar results were observed when the effects of MA on field independence-dependence was considered. Intercorrelation coefficients among all variables were computed with significant and positive relations being observed between reading and various linguistic and field independence-dependence variables. Language in the home yielded the only negative coefficient of correlation with reading. A series of multiple regression analyses applied to the data for each age group revealed that MA, grammatic closure, receptive vocabulary, expressive vocabulary and auditory blending each accounted for a substantial portion of variance associated with word recognition and comprehension. Field dependence-independence, on the other hand, contributed little to reading score variance. Use of Spanish in the home related negatively to reading score variance, and variables associated with cultural background failed to predict word recognition or comprehension performance.

Verhoeven, Ludo T. (1990, Spring). Acquisition of reading in a second language. *Reading Research Quarterly*, *25*, 90-114.

Presents a two-year longitudinal comparison of the reading acquisition process of children learning to read in their native tongue (L1) and children learning to read in their second language (L2). Subjects were 74 Turkish children (L2) learners) and 105 Dutch children (L1 learners) from 10 primary schools in the Netherlands. The children were administered several tests of word recognition efficiency (including levels of word familiarity and orthographic complexity) at the end of 5, 10, and 20 months of reading instruction. They also were given several measures of text comprehension (including aspects of sentence coherence, types of anaphoric relations and inferencing) at the end of 10 and 20 months of reading instruction. In addition, Turkish children were evaluated on their L2 oral proficiency and on their sociocultural orientation. At the start and end of grade 1 and at the end of grade 2, a test measuring nonverbal cognitive skills was administered. A series of MANOVA procedures, performed on tabulated reading data for each period of instruction, showed Turkish children to be less efficient on the reading tasks administered than their Dutch peers. Both groups used comparable word recognition and comprehension strategies. Intercorrelation coefficients between all variables suggested that during grades 1 and 2 success in word recognition and comprehension is highly affected by a second language learner's oral proficiency and the extent to which he or she identifies with the majority culture.

Belanger, Joe, & Martin, R. Glenn. (1989, March). The influence of a reading treatment on the written compositions of grade 11 students: A research update. *Alberta Journal of Educational Research*, *35*, 34-46.

Replicates with 111 eleventh-grade subjects an earlier study on the effect of a reading treatment on subsequent reading achievement and writing proficiency. Subjects were randomly assigned to groups and tested four months following the administration of the reading treatment, a four-page device designed to tap students' phonic knowledge and enable them to decode the text. Students took the NDRT as pre- and postmeasures and wrote two essays during classroom instructional time. Four months following treatment, experimental groups were superior to control groups on the NDRT. Neither sex of subject nor initial reading and writing ability significantly influenced the results. Significant differences were also found on students' essays, with experimental subjects scoring higher than control students. No interactions were found between treatment and sex or treatment and ability of subjects. The researchers conclude that the reading treatment had a direct influence on writing ability attributable to the students' improved automatic handling of the code of written English.

Richman, Charles L.; Dunn, Jenny; Kahl, Greg; Sadler, Lisa; & Simmons, Kim. (1990, May). The bizarre sentence effect as a function of list length and complexity. *Bulletin of the Psychonomic Society*, *28*, 185-187.

Assesses whether the number of sentences to be recalled and the complexity of the sentences have an influence on the bizarre sentence effect (BSE). BSE refers to the finding that bizarre sentences are recalled better than common ones in mixed lists. Two sets of 12 noun triplets were presented in four types of sentences of varied length: simple common, simple bizarre, complex common, and complex bizarre. All subjects (78 college students) were shown each sentence which they rated for its vividness using a 5-point scale. A three-way ANOVA was employed to test for significant differences between simple versus complex sentences, for sentence length (8, 12, 24 sentences), and for bizarre versus common sentences. On the average, simple sentences yielded greater recall than complex ones using the number of nouns recalled, the recall of at least one noun per sentence (sentence access), and the number of items per sentence measures. Bizarre simple sentences were recalled better than any of the other sentence types and in sentences that varied in length. There was no BSE found for any complex sentences.

IV-9 Vocabulary and word identification

Blachowicz, Camille L.Z., & Fisher, Peter J.L. (1989). Defining is an unnatural act; A study of written definitions. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 181-188). Chicago, IL: National Reading Conference.

Reports on whether pupils use a schemata for word meanings when defining words they know well. Eighty-nine fourth graders who were average or above average in reading were selected from several suburban schools. Fifteen inservice and preservice teachers enrolled in a nearby college also participated to provide contrasting definitions. Subjects were presented with a randomized list of 16 words (4 each of nouns, verbs, adjectives, and adverbs) considered to be familiar at the fourth grade level. Children were asked to write a definition of each word. Responses were classified into seven categories. Consistent findings with earlier studies were reported. Explanation was the most common type of definition given by either the pupil or teacher group, also the groups differed in the frequency of occurrences in other categories. When definitions were analyzed by the parts of speech, alternative patterns emerged suggesting the use of multiple definitional schemata. Other factors that influence the variability of definitions are discussed.

Stallman, Ann C.; Commeyras, Michelle; Kerr, Bonnie; Reimer, Kathryn; Jimenez, Robert; Hartman, Douglas K.; & Pearson, P. David. (1990, Winter). Are "new" words really new? *Reading Research and Instruction*, *29*, 12-29.

Examines whether children in second and fifth grades already know the meanings of words specified as new in the basal series to which they are assigned. Subjects were 79 second and 69 fifth graders from two midwestern school districts. For purposes of reading instruction, pupils were grouped homogeneously within classes, with children from one district using grade level texts from one basal series and children from the other district using grade level texts from a different series. Pupils were given a yes/no test and a multiple-choice test, both of which assessed familiarity with words found in the current grade level texts as well as texts that were one and two years beyond grade level. Various ANOVA procedures for repeated measures applied to the data found that children's overall mean performance on the yes/no tests mirrored their overall mean performance on the multiple-choice tests. For both second and fifth graders, overall mean scores were 75% for grade level words and more than 70% for above grade level words. Children's performance on words presented at grade level was not remarkably different from performance on words which had not yet been presented.

Graves, Michael F. (1989, March/April). A quantitative and qualitative study of elementary school children's vocabularies. *Journal of Educational Research, 82*, 203-209.

Examines developmental trends in the size and depth of good and poor pupils' reading and listening vocabulary and provides information on the utility of two lists for assessing knowledge of word meaning. In Study 1, subjects were 72 second-, 72 fourth-, and 72 sixth-grade suburban middle class pupils. Each grade level group was subdivided into equally sized high, middle, and low ability groups based on teacher ratings and confirmed by the composite score on the SRA reading test. Subjects were administered two forms of a 36-item multiple-choice test assessing six levels of word meaning difficulty. Findings from ANOVA procedures revealed significant developmental growth patterns as children advanced in grade levels. Children with higher ability outperformed those with lower ability in both listening and reading. As word difficulty increased, the performance of younger, less able pupils decreased. In Study 2, two high and two low ability children from both third and fifth grade were asked to complete three tasks with words taken from the six levels of word difficulty mentioned above. The tasks required children to give: two meanings for a word shown in isolation, two meanings for a word shown in two different sentence contexts, and the meanings of each word in a pair of closely related words. The 2 grade × 2 ability × 3 tasks × 6 levels of word difficulty design yielded mean percentages suggesting multiple meanings of words are best understood in sentence contexts. Meaning retrieval of isolated words was more easily accomplished by high achieving students than low achieving ones.

Simmons, Deborah C., & Kameenui, Edward J. (1988). Learning disabled and normal achievers' vocabulary knowledge: A quantitative and qualitative analysis. In John E. Readence, & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 133-140). Chicago, IL: National Reading Conference.

Compares performance differences between LD and normal achieving (NA) pupils when given two types of vocabulary assessment tasks. LD and NA children, ages 10 and 12, formed the sample of 48 subjects. The achievement discrepancy criterion was used for the disabled classification, and NA was determined by stanine performance (4 through 6) on the SAT. Between group differences on background variables were not found significant. Forty-five vocabulary items were selected from the verbal analogies section of the Cognitive Abilities Test. Each pupil was asked to orally define (unprompted production response) each word, followed by instructions to point to a picture representing the meaning (prompted choice response). Results of ANOVAS employed revealed differences between the means of the two groups at both ages. LD children experienced difficulty with orally defining words, but demonstrated comparable vocabulary knowledge using the prompted choice response. Such performance was similar to the NA group for the 12-year-olds but not for their younger peers. Demonstration of vocabulary knowledge as it relates to task demand performances is discussed.

White, Thomas G.; Power, Michael A.; & White, Sheida. (1989, Summer). Morphological analysis: Implications for teaching and understanding vocabulary growth. *Reading Research Quarterly, 24*, 283-304.

Evaluates in two studies the practicality of teaching middle grade pupils morphological analysis for the purpose of enabling vocabulary acquisition. In Study 1, a sample was identified of 257 prefixed words stratified according to relative frequency of occurrence. Root words were extracted from all but 10 of the words and familiar meanings were generated for all, including the 10 exceptions. The most familiar meaning of each root then was compared with the most familiar meaning of the affixed word. In general, the meanings of the roots were judged to be relevant and sufficient for understanding the meanings of affixed words in all but 19% of the cases. Using 194 words from the prefixed word sample, the estimated number of analyzable target words per million words of text was computed for each grade from 3 to 9. With each increase in grade level, a dramatic increase in the number of major prefixed words encountered was noted, with a plateau effect appearing at grades 8 and 9. Further analyses showed that approximately 80% of the words were suffixed, with over 61% of the suffixes being inflectional. Study 2 examined pupils' required knowledge of affixes at different grade levels. A stage model of the process of morphological analysis was formulated allowing prediction of growth patterns as well as patterns of difficulty that might be encountered by children at different grade levels. Participants were from two classes of average functioning third and fourth graders. Estimates of their root word, prefix, and suffix knowledge were obtained. A significant age effect was noted for all types of knowledge with fourth graders knowing more roots, prefixes, and suffixes than did third graders.

SHEFELBINE, JOHN L. (1990, March). Student factors related to variability in learning word meanings from context. *Journal of Reading Behavior*, *22*, 71-97.

Examines the effects of vocabulary knowledge, concept familiarity, and reasoning ability on word learning from written context. Subjects were 32 pupils selected from a pool of 100 sixth graders from two schools in a large metropolitan district. Selection was based on pupils' ability to represent high and low performance in vocabulary knowledge, with high and low performers being matched on general reasoning ability. Children rated potentially unknown words in passages they were about to encounter according to one of three levels of knowledge: know it well, sort of know it, and don't know it. All subjects (as they silently read) then listened to one narrative and one expository passage from a sixth grade level basal. After listening/reading, unknown words (underlined in the selections) were retested on measures requiring: open ended explanations, general recognition, and precise recognition of what each word meant. MANOVA and ANOVA procedures applied to the data showed that children with higher vocabulary levels learned relatively more, even though they had fewer words to learn. Pupils with lower vocabulary levels were not as successful because they began with knowing fewer words, and understood words to a lesser degree. For lower vocabulary pupils, words referring to familiar concepts were more easily learned than words referring to unfamiliar concepts. The study suggests that general and specific word knowledge does influence ability to learn from context while reasoning ability does not.

STAHL, STEVEN A. (1989). Task variations and prior knowledge in learning word meanings from context. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 197-203). Chicago, IL: National Reading Conference.

Investigates the influence of task variables and learner factors in learning words from context. Subjects were 182 sixth graders from rural and suburban communities randomly assigned to one of eight conditions. A 2 (vocabulary difficulty) × 2 (relevant, irrelevant preteaching) × 2 (normal, cloze) design was employed. Subjects were given either the original passage or a difficult version of a 500-word social studies passage in which every sixth word was substituted with a difficult synonym. These passages were presented intact or in a cloze condition. Following the passage, children completed a multiple-choice test assessing their knowledge of the 10 original or substituted words. An ANCOVA was employed to test for significant effects with the pretest scores from the DeSanti Cloze Reading Inventory used as the covariate. Children in the difficult vocabulary condition scored higher than children in the easy vocabulary condition. Null results are reported for the other two factors. General comprehension ability affected performance on the test but did not interact with vocabulary difficulty.

McNamara, Timothy P., & Gray, Stephanie A. (1990, May). More evidence that mediated priming does not occur between semantic-phonological associates. *Bulletin of the Psychonomic Society*, *28*, 199-200.

Replicates an earlier study that tested for mediated priming effects on word pairs. Forty-eight word pairs were selected from the set of associates used in an earlier study. In each pair (e.g. light-damp), the two words were related by a third word (lamp) that was semantically related to the prime, but phonologically related to the target. The word lists used did not contain directly related items, and letter strings were presented one at a time. Presentation of stimuli was controlled with computer software and administered to 200 undergraduate students. On each trial, single letters were displayed at 100-msec intervals. Subjects indicated whether letter strings represented words or nonwords. Analysis based on the means indicated that there was no evidence that mediated priming occurred in this experiment.

Mastropieri, Margo A.; Scruggs, Thomas E.; & Fulk, Barbara J. Mushinski. (1990, February). Teaching abstract vocabulary with the keyword method. Effects on recall and comprehension. *Journal of Learning Disabilities*. *23*, 92-96, 107.

Analyzes the effectiveness of a keyword mnemonic condition or an experimenter-directed rehearsal condition for learning the meaning of 16 difficult vocabulary words, 8 abstract and 8 concrete, by 25 LD adolescents. Words chosen were taken from a previous research study. In the keyword condition, words were presented on index cards containing the word, the keyword, the definition, and a picture of the keyword interacting with the stated definition. In the rehearsal condition, the keyword and the picture of the keyword interacting with the definition were omitted. Two tests were administered: one a literal recall test involving definitions and one a comprehension test involving matching definitions when given a novel usage of the word. Times allocated for instruction in both conditions were similar. Results suggested that the keyword subjects outperformed the rehearsal condition subjects on both the production test and the comprehension test. Students performed higher on concrete than on abstract words.

Konopak, Bonnie C. (1989, Fall). Effects of inconsiderate text on eleventh graders' vocabulary learning. *Reading Psychology*, *10*, 339-355.

Identifies content words which were embedded in inconsiderate context in United States history text material, revises the inconsiderate information according to characteristics of considerate text, and compares the two versions in terms of the learning of vocabulary for 64 high and average ability eleventh graders enrolled at a university laboratory school. Subjects read passages and then completed separate posttests for each passage. Posttests included self-reports of knowledge and definitional and comprehension measures, including explaining the importance of each word in understanding the topic. Reading and testing took place over a two-day period. Significant main effects were found for ability level and for the definition and importance measures. High ability students outperformed average ability subjects on all measures. Revised text passages generated higher scores than original passages on the definition and importance measures, but not on the self-report measures. Thus, there appeared to be a discrepancy between subjects' assumed awareness and actual knowledge of word meanings acquired from the material.

Nagy, William E., & Scott, Judith A. (1990). Word schemas; Expectations about the form and meaning of new words. *Cognition and Instruction*, *7*, 105-127.

Studies students' sensitivity to and knowledge of patterns of word meanings (word schemas). Subjects were 42 seventh graders and 37 tenth graders from a rural community, and 42 undergraduates. Students were asked to rate how likely it was that a given definition could be a real definition on a scale from 1 (implausible) to 4 (plausible). Each of the 96 items rated consisted of a word, its definition, and its part of speech, and each appeared in a sentence. Items were classified as well-formed (plausible); conceptually ill-formed (implausible); or verb-defective (violates regularities of English verbs); and as either morphologically transparent or opaque (whether word parts could be used to judge plausibility). Self-reporting strategy use and vocabulary measures also were collected. Findings indicated that students possessed both general and specific word schemas and that their knowledge about words increased with age. Older students were able to recognize fine differences in permissible meanings of nouns and verbs.

Reyes, Elba I.; Duran, Grace Z.; & Bos, Candace S. (1989). Language as a resource for mediating comprehension. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 253-259). Chicago, IL: National Reading Conference.

Refutes the claim that code switching from L1 and L2 during instruction has a harmful effect on vocabulary acquisition and reading comprehension. During a larger study examining the effects of different vocabulary instruction methods, children were observed and grouped according to their ability to code switch during instruction. Subjects were 34 bilingual (Spanish/English) elementary pupils classified as LD or RD. Pupils were assigned to one of three language conditions: Spanish, English, or Spanish/English. Three chapters were selected from a third-grade social studies textbook published in the two languages to use in instructing content-related vocabulary. To assess vocabulary acquisition and reading comprehension, a 32-item multiple-choice test was developed for the third passage. Scores on the pretest, scores on the English and Spanish proficiency ratings, and IQ served as covariates in the one-way ANCOVA. No significant differences were found among the three language conditions. Children who code switch during instruction scored no differently on vocabulary acquisition or reading comprehension than those who did not code switch.

Simmons, Deborah C., & Kemeenui, Edward J. (1990, May). The effect of task alternatives on vocabulary knowledge: A comparison of students with and without learning disabilities. *Journal of Learning Disabilities*, *23*, 291-297, 316.

Compares the performance of 10- and 12-year-old pupils with and without learning disabilities to describe the vocabulary knowledge they possess and to assess the effect of task alternatives on their knowledge. Groups were equated on background variables of IQ and age. They differed in reading comprehension and total reading scores. Vocabulary selected from the COGAT was first assessed with an unprompted production task. If results were inaccurate or incomplete, children received the same vocabulary term in an identification task. Subjects were shown a template of four drawings, and asked to point to a picture representing target word meaning. LD pupils were significantly less able to construct full responses on the production task than were pupils without disabilities. They were comparable in their ability to use picture responses to demonstrate vocabulary knowledge during the identification task. When the two groups were equated for level of reading achievement, only the 10-year-olds were significantly poorer in composite vocabulary knowledge. The effect of learner classificaion was not significant at the 12-year-old level.

Stuart, Morag. (1990, May). Factors influencing word recognition in prereading children. *British Journal of Psychology*, *81*, 135-146.

Challenges word recognition theories which propose that prereaders who are competent in phonological segmentation and sound-letter correspondence create word recognition units for words prior to seeing them in print. Eight 4-year-old females were tested during a 3-month period on sound-segmentation; sound-letter matching; auditory-visual matching; the reading of words, nonwords, and pseudohomophones; nonword spelling; and vocabulary. No child was able to read any words on the word reading measure. Most children appeared competent (70% correct) in segmenting initial and final phonemes, but none were able to segment medial sounds. A strong positive correlation coefficient emerged between phonological ability and letter-sound knowledge. Auditory-visual matching tasks indicated that children who could segment initial and final phonemes were able to use this information to discriminate among targets and distractors. No advantage emerged for words or pseudohomophones as would be predicted if children create partial word recognition units, suggesting the use of some nonlexical system for mapping sound to print. Overall, young children were able to use their phonological skills and knowledge to generate a rule-governed system of reading prior to formal instruction.

RAYNER, KEITH. (1988, December). Word recognition cues in children: The relative use of graphemic cues, orthographic cues, and grapheme-phoneme correspondence rules. *Journal of Educational Psychology, 80*, 473-479.

Examines the relative importance of sound and shape as cues to word recognition at various levels of reading development. Four age groups, each with eight children (4, 6, 8, and 10 year old) participated with payment in the study. All subjects were from a white middle-class school in Oxford, England. ANOVA procedures applied to a word reading task and a lexical decision task given to all subjects confirmed reading skill differences among the four age groups. A delayed matching to sample task required each subject to view 20 stimulus words and 20 nonwords, one at a time, and then to choose the one of four response alternatives that most approximated the stimulus. Alternative 1 (sound), sounded like but had a different word shape than the stimulus. Alternative 2 (shape-legal) had the same shape and the same initial and final letters as the stimulus and was pronounceable. Alternative 3 (shape-illegal) was similar to alternative 2 but nonpronounceable. Alterntive 4 (different-shape) had a different word shape from the stimulus but the same initial sound. Trial 1 required children to choose the response most like the stimulus. Later trials required them to choose the response that sounded like or looked like the stimulus. ANOVA procedures applied to the data revealed 4- and 6-year olds most often chose responses based on shape. Variations in instructional directives did not influence their choice. Eight-year olds also favored responses based on shape but were able to choose alternatives based on sound when instructed to do so. Ten-year-olds more often chose responses based on sound similarity, but were able to choose on the basis of shape when told to do so. Results suggest the relative importance of cue differentation during word instruction.

VAN ORDEN, GUY C.; JOHNSTON, JAMES C.; & HALE, BENITA L. (1988, July). Word identification in reading proceeds from spelling to sound to meaning. *Journal of Experimental Psychology; Learning, Memory, and Cognition, 14*, 371-386.

Replicates an earlier study that reported that false positive errors in a categorization task are elevated for homophonic foils (e.g., "bare" for an animal). The two experiments used 30 and 50 paid high school students, respectively. Subjects were placed in a soundproof booth before a computer on which stimuli were presented. A category name appeared on the screen followed by a word or nonword homophonic letter string foil. Subjects were to determine whether the target was an exemplar of the category. Experiment 2 included a comparison of false positive error rates between new sets of yoked word and nonword homophone foils as well as a comparison between each false positive "yes" response time to a homophonic foil and the subject's correct "yes" response time to a matched control exemplar of the corresponding category. Findings indicated that false positive errors to nonword homophone foils exceeded positive errors to nonhomophonic nonword spelling controls, demonstrating that the phonological characteristics of the nonword foils were critical. Matched word and nonword homophones produced almost identical error rates. The authors conclude that their findings suggest that phonological mediation plays a role in normal reading of text for meaning.

WEISBERG, PAUL; ANDRACCHIO, BRUNO J.; & SAVARD, CHRISTOPHER F. (1989, January/February). Oral blending in young children: Effects of sound pauses, initial sound, and word familiarity. *Journal of Educational Research*, *82*, 139-145.

Examines in two experiments the effects of word familiarity, initial sound type, and length of pausing interval between sound elements on oral word blending ability of beginning readers with different levels of training. In Experiment 1, 22 kindergarten and 22 first grade lower SES children from heterogeneously grouped homerooms were individually presented with 20 meaningful and 12 nonwords, each consisting of three distinct phonemes. For each word type, half contained an initial continuous consonant and half contained an initial stop consonant. A trained observer independently scored all blending along with the main observer. First graders performed better than kindergartners at all three intervals with diminished performance observed as time intervals increased. First graders also outperformed kindergartners on both meaningful and nonwords, respectively, with kindergartners, but not first graders, doing better on meaningful words. Both age groups performed better on all words with initial stop consonants. In Experiment 2, preschoolers were classified as advanced, intermediate, or beginning according to levels completed in a code emphasis program which provides blending instruction. Procedures replicated those for Experiment 1. ANOVA indicated kindergartners with extensive training blended as well as first graders. Younger beginning readers performed similarly to kindergartners in Experiment 1. Significant interactions resulted between interval and word familiarity and initial sound and word familiarity.

GILL, J. THOMAS, JR. (1989, Spring). The relationship between word recognition and spelling in the primary grades. *Reading Psychology*, *10*, 117-136.

Explores the developmental relation between word recognition and spelling by comparing children's recognition of words printed in their own invented spelling with their recognition of the same words correctly spelled. Subjects were first, second, and third graders in a small public school. A spelling test containing 41 words was administered. From the results, two tests of word recognition in isolation were created for each child. The first test contained all the words on the spelling test with the first 20 typed in correct form and the other 21 typed as the child spelled them. The second test used a format that was a reversal of the first. Administration of the first word recognition test involved showing the word in a flashed condition, recording the response, and then showing the word again in an untimed condition. The second word recognition test was administered one week later in similar fashion. Percentages were computed for correct spelling across the grades. Contrasts in proportions were made between recognition of correctly spelled words and recognition of invented spelling words of each child with only the words misspelled by each child being considered for analysis. Results showed that words spelled correctly increased with grade level. In addition, for both the timed and untimed conditions, children tended to respond similarly to their own invented spelling as they did to words presented in standard spelling. A tendency to more accurately recognize words when they were written in standard spelling was noted. Findings suggest that word recognition and spelling are closely related processes.

LENCHNER, ORNA; GERBER, MICHAEL M.; & ROUTH, DONALD K. (1990, April). Phonological awareness tasks as predictors of decoding ability: Beyond segmentation. *Journal of Learning Disabilities*, *23*, 240-247.

Reports an investigation examining the relations among different measures of phonological awareness and between these measures and phonetic decoding ability among third-

and fourth-grade readers. Subjects were 38 third- and fourth-grade males, including 19 above average readers who were good decoders and 19 disabled readers who were poor decoders, drawn from 10 schools. Phonological awareness was assessed on a series of six measures, including tasks that required the ability to segment, blend, and manipulate phonemes. Pearson product moment coefficients were established to examine the relations among the measures. Performance on these tasks also was correlated with phonetic decoding of pseudowords. Intercorrelation coefficients among the measures of phonological awareness ranged from nonsignificant to .76. For the poor decoders, deletion was the most highly correlated with the other tasks. However, all good decoders performed at the ceiling level on this task. For the poor decoders, deletion was significantly correlated with phonetic decoding ($r = .74$ and $r = .78$ for timed and untimed decoding measures, respectively). While all good decoders had good phonological awareness, not all those with good phonological awareness were good decoders. The results suggested that tasks that require blending and manipulation of phonemes, in addition to segmentation, may predict decoding ability best.

BOWERS, PATRICIA. (1989). Naming speed and phonological awareness: Independent contributors to reading disabilities. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 165-172). Chicago, IL: National Reading Conference.

Studies phonological skills, naming speed, and short term memory in the context of different reading tasks. Severe problem readers and average readers from three fourth-grade classrooms comprised the sample of 28 subjects. PPVT scores provided IQ controls. Subjects were administered a battery of tests including: The Canadian Test of Basic Skills (achievement), the Word Identification and Word Attack subtests of the WRMT (word reading and nonsense word decoding), a digit/letter naming task, the Auditory Analysis Test (AAT), the Odd Word Out task, the Snowling Nonword Repetition Test (phonological awareness measures), and the Digit Span subtest of WISC-R (short term memory). Analysis indicated that the AAT, the Snowling test, and digit-naming speed are independent contributors to several types of reading tasks. All phonological measures were related to word identification and word attack scores (individual word and nonword reading) but not to the broader test of achievement. The lack of relation between phonological tasks, memory, and naming speed suggested that there are distinct processing requirements for single word tasks.

SHEFELBINE, JOHN; LIPSCOMB, LUCI; & HERN, ALISON. (1989). Variables associated with second-, fourth-, and sixth-grade students' ability to identify polysyllabic words. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction (pp. 145-154).* Chicago, IL: National Reading Conference.

Assesses the syllabication abilities of 227 children in grades 2, 4 and 6 to determine what variables may influence the successful use of this decoding strategy. Twelve classrooms, four per grade level, were selected from three urban schools. Identification of real polysyllabic words (dependent variable) was measured using the San Diego Quick Assessment, the Word Identification subtest of the WRMT, and a test constructed by the authors. Oral vocabulary was determined with the auditory subtest of the SAT. Multiple correlation coefficients and multiple regressions were employed to examine the relations among the four independent variables: syllable identification, syllable automaticity, syllable pattern identification, and oral vocabulary. Oral vocabulary knowledge was the most strongly associated with polysyllabic word identification and was the most important factor for grades 4 and 6, but not for grade 2. The influence of each variable in relation to word identification and in relation to one another is discussed.

Peterson, Robert R., & Simpson, Greg B. (1989, November). Effect of backward priming on word recognition in single-word and sentence contexts. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 1020-1032.

Discusses two studies designed to investigate backward priming under conditions similar to those used in lexical ambiguity research. For each experiment, 32 undergraduate volunteers served as subjects. Subjects received prime-target word pairs associated either unidirectionally (baby-stork) or bidirectionally (baby-cry). In the first experiment, subjects made naming or lexical decision responses to the targets. Forward priming was obtained in all conditions, while backward priming (i.e., priming for pairs in which there was a unidirectional target-to-prime association, as in baby-stork) occurred only with lexical decision. In the second experiment, primes were presented auditorily, either in isolation or in a sentence. Targets followed the offset of the primes either immediately or after 200 ms. Backward priming occurred with both response tasks, but only when the prime was an isolated word. In addition, backward priming decreased over time with the naming task, but not with lexical decision. These results suggested that the locus of the backward priming effect is different for the two response tasks. Further, the lack of a backward priming effect with sentence contexts suggested that backward priming cannot account for the demonstrations of multiple access in the lexical ambiguity literature.

Vitek, Debra J., & Schwantes, Frederick M. (1989, June). Automatic-spreading activation effects following children's reading of complete sentences. *Journal of Reading Behavior, 21*, 181-194.

Seeks to determine if context effects or attentional expectancy effects extend beyond sentence completion boundaries and influence subsequent word recognition speed, and investigates whether automatic expectancies contribute to developmental differences in effects of sentence context on word recognition speed. Subjects were 25 third graders and 25 sixth graders recruited from one elementary school, and 25 college students. Mean reading achievement levels (ITBS) of the children, expressed in grade equivalent scores, were 4.4 and 7.1 for third and sixth graders, respectively. The subjects participated in an on-line reading task that incorporated both a naming latency and a subsequent cued-recall memory requirement. Following reading of a complete sentence, latency for naming a target word was measured in which the target word was either a repetition of a word in the previous sentence, an associate of a word in the previous sentence, a word inferable from the integrated meaning of words in the previous sentence, or a word unrelated to words in the previous sentence. Each subject's mean reaction time (RT) on correct response trials was entered into a 4 (target) by 3 (grade level) by 5 (list) mixed modes model ANOVA. Three major findings were obtained. First, sentence context factors were found to affect speed of recognizing words. Second, developmental differences in word recognition speed were found to vary with the nature of the relation between the target word and the preceding sentence. Specifically, facilitation in speed of reading targets that were either repetitions or associates of words read in the previous sentence was greater for younger readers compared with adults. Finally, facilitation in speed of reading targets whose meanings were inferable from the previous sentence was greater for younger readers compared with college readers.

Wise, Barbara W., & Olson, Richard K. (1990, February). Subsyllabic units in computerized reading instruction: Onset-rime vs. postvowel segmentation. *Journal of Experimental Child Psychology, 49*, 1-19.

Designs three experiments to determine if children learn more words segmented at the onset-rime boundary (e.g., cl-ap, d-ish) than words segmented after the vowel (cla-p, di-sh). The sample for Experiments 1 and 2 included 20 first graders from one city school

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district who were selected on the basis of performance on the WRAT. They scored between 1.4 and 2.2. The subjects for Experiment 3 were drawn from a second school on the basis of similar performance on the WRAT. In each experiment, pupils studied 32 single words presented by a computer connected to a speech synthesizer. Each experiment was conducted in one session that entailed pretesting, training, and posttesting of the target words. A final test was given at the end of the session to assess longer term retention. Experiment 1 used words of four letters but only three phonemes. In some of the words the onset-rime segmentation corresponded to the initial bigram; in others, it did not. Experiments 2 and 3 used 32 words of four letters and four phonemes. Data resulting from each experiment were analyzed separately. Overall, the results of the three experiments demonstrated that children who had been trained with rime segmentation retained more new words than those trained with postvowel segmentation when tested for short term retention. The results for long term learning were less clear as the effect of segmentation did not reach significance.

BRYANT, PETER, & BRADLEY, LYNETTE. (1985). *Children's reading problems*. Oxford, UK: Basil Blackwell.

Reviews and briefly comments on selected research related to various aspects of children's reading problems and then suggests possible solutions for different kinds of reading difficulties. The authors state that much of the available evidence related to children with reading problems is inadequate, thereby leading us down a false trail in an effort to treat the difficulty. They note that the most obvious difficulty faced by backward readers is with sounds in words in that they find it hard to isolate the sounds, to use them to build words, and to see that different words have sounds in common. Sensitivity to sounds in words is felt to be on a continuum, thereby experiences with this skill should aid all youngsters and not simply those who are potentially backward readers. Suggestions for instruction are offered.

STANOVICH, KEITH E., & WEST, RICHARD F. (1989, Fall). Exposure to print and orthographic processing. *Reading Research Quarterly, 24*, 402-433.

Assesses whether orthographic ability can account for some variance in word recognition and spelling skill, and if this variance is associated with amount of print exposure. In Study 1, subjects were 61 introductory psychology students. The Experimental Spelling Test (EST), and the WRAT Spelling were administered to determine students' abilities to process various forms of orthographic, morphologic, or nonphonetic ambiguity as well as to yield a composite spelling score. Print exposure measures given were: the Reading and Media Habits Questionnaire (RMHQ); the Author Recognition Test (ART), which assesses recognition of highly visible book authors; and the Magazine Recognition Test (MRT), which taps magazine recognition. Subjects had greater recognizability for magazines than for books. Moderate coefficients of correlation between measures of print exposure were reported. Performance on the ART, but not the MRT, was significantly correlated with composite spelling performance. Only one RMHQ question asking subjects' two favorite authors predicted spelling performance. Both the ART and the favorite author question correlated more highly with morphophonemic errors than orthographic errors, and more highly with nonphonetic errors than with morphophonemic errors. Performance on the ART accounted for a significant proportion of the variance in spelling ability. In Study 2, 180 undergraduates from two different psychology classes were given the word recognition and comprehension subtests of the WRMT-R and the MRT, ART, WRAT, and the EST as in Study 1. Also administered were several laboratory tasks assessing reaction time to various forms of phonological and orthographic processing. Using the WRMT-R word identification subtest as a criterion variable, moderately high coefficients were observed with reading comprehension, spelling, pseudoword naming, irregular word naming, the phonological choice task, and performance on the ART. Low, but significant, coefficients were indicated with the MRT, orthographic processing measures, and regular word naming. The ART emerged as a strong predictor of word recognition ability, accounting for variance in orthographic processing independent of phonological factors.

White, Thomas G.; Graves, Michael F.; & Slater, Wayne H. (1990, June). Growth of reading vocabulary in diverse elementary schools: Decoding and word meaning. *Journal of Educational Psychology, 82*, 281-290.

Charts reading vocabulary growth for pupils in grades 1 through 4 in three elementary schools (suburban, innercity, and semirural) enrolling economically disadvantaged dialect-speaking Asian/Pacific pupils. Materials included a randomly ordered 56-item multiple-choice vocabulary test and interview prompts for the same words. Test words were a stratified random sample drawn from the 19,050 most frequent words in the American Heritage Word Frequency Book. Reading vocabularies were found to grow rapidly from grade to grade at all three schools. The average annual increase between grades 1 and 3 was 5,200 words for the suburban school, 3,200 words for the innercity school, and 3,500 words for the semirural school. Toward the end of fourth grade, it was estimated that pupils in the suburban school knew 16,000 of the 19,050 words, while pupils in the other two schools knew about 12,000. The reading vocabulary of the average first grader in the suburban school was approximately 33% larger than that of pupils in the innercity school and 100% larger than that of pupils in the semirural school. The gap between mainstream and disadvantaged pupils was greatest for infrequent words. The data were interpreted as suggesting that direct instruction in decoding and/or individual word meanings could play a limited role in assisting minority children.

IV-10 Factors in interpretation

Mate, Zolton, & Malicky, Grace. (1990). The affect of salience imbalance on children's metaphor comprehension. *English Quarterly, 22*, (1,2), 64-78.

Tests the usefulness of the salience imbalance theory of metaphor processing to aid in understanding how children comprehend metaphors. A total of 90 sixth graders enrolled in four public schools participated in this study. All subjects scored above the 50th percentile on the local district test of reading and were randomly assigned to three treatment groups of equal size. Some metaphors were selected from basal readers and literature written for grade six pupils, while others were constructed by the researchers. The task for Group 1 was to paraphrase the meaning of 12 metaphors (six in ascending mode, six in descending mode) and indicate the goodness of each on a Likert-type scale. Group 2 subjects were presented with 12 metaphors in the ascending mode with the topic and vehicle of each presented in isolation with six defining and six characteristic attributes. The subjects were asked to paraphrase the metaphors and to select the six most salient attributes. Group 3 pupils were given six metaphors in the ascending mode and a shared attribute for each metaphor. They were asked to paraphrase the metaphors and assess the salience of the shared attribute for the topic and the vehicle. Responses were scored on a scale of 1 to 5. Results of the analyses of pupil performance on comprehension in the alternative conditions demonstrated support for the prediction that the measure of salience of features was affected by the order of the topic and the vehicle. However, there were examples of children's responses that the salience imbalance model did not explain. In some instances, children were able to correctly interpret metaphors in both the ascending and the descending modes or in the descending mode only. The salience level of the shared attribute was higher for the vehicle and lower for the topic (salience imbalance), offering additional support for the model. It was also observed that certain metaphors were comprehended and evaluated differently by the subjects. Comprehension occurred when no high salient feature was selected, no fusion of terms was attempted, or when emotive considerations played a role in the selection of shared attributes. It was suggested that the model be extended by integrating schema theory and theory of cognitive psychology in order to explain a broader range of phenomenon.

Gentile, Claudia, & Kane, Sharon. (1989). A study of diverse responses to an allegorical text. In Robert W. Blake (Ed.), *Reading, writing, and interpreting literature: Pedagogy, positions, and research* (pp. 218-244). Schenectady, NY: New York State English Council.

Explores developmental differences in response to a story. Subjects included two classes at each of grades 3, 5, 8, and 10 from a suburban school district. Participants were asked to listen as an allegorical Dr. Suess book was read to them, to respond in writing to the book in any way they wished, and also to respond in writing to what they felt was the central theme or message of the book. Categories were developed from the responses at each grade level and compared across grade levels. In addition, the length and variety of response types were analyzed. Older students' responses did not tend to be longer than those of the younger children. However, 95% of third graders used only one response type, while 28% of fifth graders, 60% of eighth graders, and 86% of tenth graders used more than one response type. A number of younger children (24% at grade 3, 28% at grade 5) were aware of an allegorical level of meaning in the text, while a number (41%) of tenth graders seemed unaware of the allegory.

Littlefair, Alison B. (1989). Genre and register: Implications for reading. In Morag Hunter-Carsch (Ed.), *The art of reading* (pp. 178-182). Oxford, UK: Basil Blackwell.

Works with 72 subjects from two secondary schools and four junior schools in Great Britain to determine whether they perceive genre and register in reading materials. Each group contained an equal number of low, average, and able readers. Individuals were asked to match pages of text from different genres with one of four pages taken from books representing the four major genres: literary, expository, procedural, and reference. Reasons for the choices were given. It was concluded that the trends of responses collected indicated that awareness of the register of books is developmental.

Flood, James; Mathison, Carla; Lapp, Diane; & Singer, Harry. (1989, Fall). Reading comprehension performance: The effects of teacher presentations and text features. *Reading Research and Instruction*, *29*, 1-11.

Examines the role of the teacher in enhancing students' reading comprehension. Subjects were 44 graduate students who read either a natural or degraded version of two difficult texts and completed a 37-item multiple-choice test. Degraded versions were constructed by deleting text features that can affect students' comprehension (e.g., lexical synonymy, summarizations, explicit definitions, and visual aids). Half of the students received a 30-minute teacher presentation prior to the reading of each text; the other half was asked only to read, study, take notes from the text, and answer the questions. Each group was given 90 minutes for the task. Results indicated a significant main effect for the teacher presentation group. On measures of comprehension and vocabulary, students who received the teacher presentation outperformed students who did not. No significant differences were found for the students' performance on the natural text versus the degraded text for the combined treatment of teacher presentation and text. The authors concluded that the results of this study suggest that the teacher is a more significant factor in the comprehension of lengthy, natural texts than is the ease of the text itself.

Bunbury, Rhonda, & Tabbert, Reinbert. (1989, March). A bicultural study of identification: Readers' responses to the ironic treatment of a national hero. *Children's Literature in Education*, *20*, 25-35.

Uses taped interviews in asking how children in Australia and Germany respond to the ironic humor of a popular Australian book that had been translated into German. Data were collected over a 4-year period. Very briefly presented are a 10-, an 11-, and a 12-year-old child's responses to the text as well as those of several adults. The authors concluded that the ability to experience ironic identification falls along a spectrum of reading encounters varying in intensity.

VAN DEN BROEK, PAUL. (1989, Winter). The effects of causal structure on the comprehension of narratives: Implications for education. *Reading Psychology*, *10*, 19-44.

Reviews theoretical models for describing the internal representation of events in stories and suggests that there is a close correspondence between a model of causal networks and readers' mental representations of narrative texts. A model of causal representation is compared and contrasted with other models used to investigate narrative discourse: story grammars, referential theories, and hierarchical models. Implications of a causal network theory for reading and composition instruction are suggested.

IV-11 Oral reading

MALIK, ALI ASGHAR. (1990, Spring). A psycholinguistic analysis of the reading behavior of EFL-proficient readers using culturally familiar and culturally nonfamiliar expository texts. *American Educational Research Journal*, *27*, 205-223.

Presents a descriptive study of the oral reading behaviors of English as a Foreign Language (EFL) proficient readers. Subjects were 15 Iranian male university students. They were proficient readers of English with an objective equated score of 80 or above on the Michigan Test of English Language Proficiency (MTELP). Test materials included both culturally familiar and culturally unfamiliar expository texts which were read orally by all participants. Subjects' reading comprehension was determined on the basis of the number of recalled idea units, reading strategies (predicting, confirming-correcting, and integrating) were determined using a miscue analysis, and reading speed was determined by calculating words per minute. T-tests were performed to identify significant differences; Pearson product moment correlation coefficients also were calculated to study the interrelations among subjects' reading comprehension score, integration score, and reading speed for the two texts. The results showed that cultural schemata significantly affected the reading comprehension and strategies of EFL-proficient readers reading expository texts. The subjects' reading was relatively accurate (both syntactically and semantically) yet evidenced little integration of the unfamiliar text. The familiarity of the text had no significant effect on subjects' reading speed.

ZUTELL, JERRY, & RASINSKI, TIMOTHY. (1989, Spring). Reading and spelling connections in third- and fifth-grade students. *Reading Psychology*, *10*, 137-155.

Investigates the relation between oral reading behavior and spelling ability of middle elementary level children. Subjects were 72 third graders and 60 fifth graders from two elementary schools (one urban and one suburban). Each subject was asked to orally read a passage rated at one grade level above his or her current placement, spell words on the grade level list of the Qualitative Inventory of Word Knowledge, and take the appropriate level of the GMRT. Accuracy, rate, and phrasing scores were derived from the oral reading measure. Accuracy, phonetic quality, and spelling stage scores were derived from the spelling test.

Data were analyzed by applying a series of ANOVA and ANCOVA procedures followed by a variety of correlational and regression techniques. Results for both grade levels indicated high significant coefficients of correlation between spelling and reading variables. Spelling variables accounted for 40% to 60% of oral reading test variance. When the GMRT was used as a control variable, the proportion of oral reading variance accounted for by spelling was smaller but still significant.

Goodacre, Elizabeth. (1987). Intonation in early reading. In Peter Smith (Ed.), *Parents and teachers together*, (145-153). London, UK: MacMillan Education.

Describes two studies that sought evidence on the amount and type of intonation in children's early oral reading. The first study involved 30 children (both good and poor readers) ages 7 to 11 years, reading unseen, complete, one-page stories of increasing reading difficulty. It was found that younger and slower-progressing children tended to make use of a falling nuclear tone which gave emphasis to individual words (and sometimes syllables and phonemes). Rather than reading in a "one word at a time" style, they exhibited four intonation styles: an automatic style, a dramatic reading with exaggerated contours, a minimal style, or a questioning or rising intonation style. The second study was concerned with the extent to which beginners demonstrated evidence of mapping spoken words onto the words in printed text. Forty children, between 5 and 6 years, identified by their teachers as at the finger-pointing stage of beginning reading, were studied over a term, reading from the normal reading material provided by their teachers. The research explained that this study provided little reliable data due to the problems of obtaining good tape recordings in the naturalistic setting, as well as the silent reading rehearsals that children were observed to do. Although there was evidence of children using stress to emphasize individual words and syllables, they used a variety of intonation patterns that seemed to fulfill different function.

Hollander, Sheila K. (1990, January). Oral reading accuracy and ability to solve arithmetic word problems. *School Science and Mathematics*, *90*, 23-32.

Cites selected research on the relation between oral reading accuracy and the ability to solve arithmetic word problems. It is noted that a high degree of accuracy in the oral reading of arithmetic problems has not been associated with success in problem solving. Rather, deviations from the text in such instances may be a function of the reader's attempt or need to make the text more relevant to his or her own language and informational needs. Implications for instruction are discussed.

Simons, Herbert D., & Ammon, Paul. (1988). Primerese miscues. In John E. Readence, & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 115-121). Chicago, IL: National Reading Conference.

Analyzes the oral reading miscues of 60 first graders to identify whether the controlled language used in basal stories (primerese) would interfere with the readers' knowledge of natural language. Each student read four original basal stories or rewritten versions that simulated more natural language. The miscues reported were selected from the readings of the original basal stories and represented at least 10% of the sample response. Beginning readers produced editing miscues that changed awkward phrases into expected prose. Pupils also changed verbs into familiar past tense, rather than reading the story in the present tense, the form most stories in basals take. Exclamation points which characterize primerese often were ignored by the readers. Punctuation marks were attended to and inserted when they made sense to the students but were misinterpreted when they were included to transform the sentence to a controlled form.

Caddell, Jacque. (1989/1990, Fall/Winter). A comparison of students' reading of basal adaptations and tradebooks. *Arizona Reading Journal*, *18*(2), 28-30.

Observes the reading of eight above average second graders, six girls and two boys, to determine their differences in reading miscues while reading basal adaptations and tradebooks of the same title. Each subject read two basal adaptations and two original tradebooks, and retold each story. While patterns were similar for reading both types of text, subjects had more difficulty reading tradebooks than reading the adaptations. Two months later, subjects were able to recall more of the stories from the tradebooks than from the basal adaptations.

WUTHRICK, MARJORIE A. (1990, Winter). What should I do when they don't know the words? A review of the literature. *Ohio Reading Teacher*, *24*, 32-40.

Reviews current research addressing questions about teachers' treatment of miscues and errors when children read orally. It is concluded that feedback encouraging readers to self-correct promotes reading independence and autonomy.

BENTZ, JOHNELL; SHINN, MARK R.; & GLEASON, MARY M. (1990). Training general education pupils to monitor reading using curriculum-based measurement procedures. *School Psychology Review*, *19*(1), 23-32.

Asks whether elementary-aged pupils can be taught to assess reading skills of younger children as accurately as trained adults. Subjects included 14 fourth and fifth graders from a private school who served as monitors, and 28 children in grades 2 and 3 who served as the readers. Monitors were trained with materials that included scripts, tape-recorded reading passages, and printed passages from three levels of a reading series. The scripts taught pupils to record the number of words read correctly by the younger children, and also trained them in how to give directions and how to time the reading tasks. The identification of four incorrect word types (omissions, substitutions, mispronunciations, and hesitations) and two correct word types that could be confused with incorrect ones (repetitions, self-corrections) were taught. Instruction in these procedures occurred in five 30-minute sessions in groups of five. Monitors then collected the recorded reading samples for three days, each time from two passages, one at and one above the instructional placement level of the reader. Adult monitors enrolled in a graduate course in educational assessment then listened to and scored the tapes. Scores reported by the two sets of monitors were compared and the percentage of agreement was calculated. For the total sample, the agreement between the two groups was 97.7% on the grade level passages and 96.8% on the above grade level passages. Oral reading fluency of the child monitors was moderately correlated to their accuracy level with the trained adults.

SCHUMM, JEANNE SHAY, & BALDWIN, R. SCOTT. (1989, June). Cue system usage in oral and silent reading. *Journal of Reading Behavior*, *21*, 141-154.

Contrasts the extent to which context is used by readers of different ages when reading silently and orally. There were 24 subjects at each of grade levels, 2, 4, 6, and 8. Children attended a private school, and all were reading at or above grade level. Twenty three-sentence paragraphs were constructed at each grade level. Two sets of six passages each (set A and set B) contained an orthographically altered word, one set of six distractor passages contained no textual alterations, and two practice passages also contained no textual alterations. Sets A and B were counterbalanced so that 12 subjects at each grade level received one set for oral reading and the other for silent reading, while 12 subjects received them in reverse order. The number of target words identified as altered served as the dependent variable in both reading conditions. Following the reading, subjects completed an exercise consisting of two cloze phrases from each passage with two possible answers for each word deletion, one contextually appropriate and the other orthographically similar but contextually inappropriate. At grades 4, 6, and 8, children reported significantly more words as graphically altered in the oral condition than in the silent reading condition; at grade 2, the difference was not significant. The authors argue that their findings cast suspicion on diagnostic and instructional practices that assume that word recognition processing is similar in both reading modes.

Pumfrey, P.D., & Fletcher, J. (1989, September). Differences in reading strategies among 7 to 8 year old children. *Journal of Research in Reading*, *12*, 114-130.

Examines young readers' ability to use three available cue systems in text as it is affected by reading attainment level, comprehension level, and text level of difficulty. Subjects were selected from three British innercity schools. Three groups, each containing 10 boys and 10 girls, ages 7.5 to 8.5, were formed based on subjects' high, average, or low performance on the Burt Word Recognition Test. All subjects read orally from the NARA and answered comprehension questions for each passage that was read. All miscues made during oral reading were recorded and rated for syntactic and semantic quality as well as graphophonic similarity to the word in text. Scores were computed for each cue system for each child and each group. An ANOVA applied to the data for easier passages indicated high reading groups were superior in acceptable usage of syntactic and semantic cues as compared with average and low achievement groups. With regard to graphophonic similarity of miscues to words in text, the high reading group exhibited better performance than the average group, but there was no difference in the mean scores of the average and low reading groups. Coefficients of correlation between the three attainment measures (the Burt raw score, reading age, and reading attainment) and quality of miscues were highly significant; but not so for the comprehension measures on which a ceiling effect was noted. An ANOVA performed on data from harder passages revealed deterioration in miscue quality for the high and average groups. A strong relation was observed between performance on the word recognition test and effective use of graphophonic cues, but not for effective use of syntactic and semantic cues. Comprehension performance was significantly related with quality of semantic and syntactic cues in harder materials.

IV-12 Rate of reading

O'Reilly, Robert P., & Walker, James E. (1990, Winter). An analysis of reading rates in college students. *Reading Research and Instruction*, *29*, 1-11.

Reviews selected, experimental studies conducted with college students to assess both reading rates and the underlying processes involved in reading with comprehension. The evidence suggested that due to the manner in which readers process text in the act of normal reading, there are definite limits on the speed that might be expected while maintaining adequate comprehension. The causal factors were not found in limitations of the visual system but in speed and efficiency of processes involved in word recognition, the size of working memory, and comprehension processes. It was suggested that slow and ineffective reading among poor college readers should not be approached as simply a problem with vocabulary size and meaning, but rather as a problem in how memory for meaning is organized and accessed in the process of comprehending. The authors concluded that the research clearly confirms that efforts to train college readers to read in excess of 400 wpm is inappropriate and indefensible.

Carver, Ronald P. (1989, June). Silent reading rates in grade equivalents. *Journal of Reading Behavior*, *21*, 155-166.

Converts silent reading rates into grade equivalents, using data from several different sources. Using the data from a 1965 study as the most representative, the researcher concluded that growth in reading rate is approximately 10-20 words per minute for each year in school for typical students. It is suggested that the GE values obtained for rauding rate may be used as one factor when assessing reading ability using Informal Reading Inventories.

Elbro, Carsten, & Christoffersen, Jytte. (1988, December). Reading in a moving text-window: Differences between fast and slow adult readers. *Scandinavian Journal of Educational Research, 32,* 141-151.

Tests two hypotheses about fast reading: the perceptual and the conceptual. The perceptual hypothesis contends that fast reading is a matter of efficient visual perception, while the conceptual hypothesis holds that fast readers use other strategies in comprehension than do slow readers. Subjects were 16 students who had participated in a university level course in efficient reading; half had made significant gains and half had not improved their reading during the course. Subjects read four short stories and answered two multiple-choice questions about each. Experimental conditions involved three window sizes presented on a computer screen: 6, 16, and 26 characters and a control condition where a full page of text was shown. Window speed was set at approximately 170 words per minute at the onset and changed according to subjects' rates. Fast readers read significantly faster and answered more questions correctly (not significant) than did slow readers. In both groups, a window of 6 characters was significantly slower than a window of 16 characters, with no significant differences in rate between 16 and 26 characters. Only fast readers read faster with the full page visible than with the 26 character windows. The authors concluded that findings supported a conceptual rather than a perceptual hypothesis about reading.

Breznitz, Zvia. (1988, October). Reading performance of first graders: The effects of pictorial distractors. *Journal of Educational Research, 82,* 47-52.

Hypothesizes that having first graders read at their fastest normal oral reading rate would improve comprehension even though distractors were present. Subjects were 44 matched pairs of Israeli first graders. Children read on a computer screen three forms of the Comprehension Test for Grades 1 and 2, one form as a pretest and two forms in experimental conditions. Each form of the test had six items in order of increasing difficulty and length, with each item followed by a question and four short multiple-choice answers. In the distractor condition, six line drawings of familiar tasks appeared twice within each test form, once above the first word in an item and again after the last word in an item. In the recognition test condition, subjects again were presented with the six pairs of line drawings; within each pair one picture appeared in the distraction condition and one was a foil. Children were asked to tell which of the two pictures had been in the test they had read. First, all children read a test form without pictorial distractors at their normal reading rate; next, controls read a form with pictorial distractors at their normal rate; and experimentals were asked to read a pictorial distractor form in a condition in which items were presented on the screen at a rate based on the fastest rate at which each child had read a correctly answered item in the self-paced condition. The distractor recognition test was given immediately following the pictorial distractors test. Reading at a faster pace, even with distractors, increased comprehension and reduced errors. Control children recognized significantly more of the items in the distractor recognition test than did experimental children.

Rasinski, Timothy V. (1990, January/February). Effects of repeated reading and listening-while-reading on reading fluency. *Journal of Educational Research, 83,* 147-150.

Compares two approaches for promoting reading fluency with third grade pupils: repeated readings and listening-while-reading. Fluency was defined in terms of reading speed and word recognition accuracy. Subjects were 20 third grade children. Using classroom teachers' recommendations, pupils' reading ability levels were identified, and subjects were paired by ability: seven high average pairs, two average pairs, and one low ability pair. The treatment, two separate treatment cycles of four days each, consisted of a pretest, two practice sessions, and a posttest. Practice reading and the pre- and posttesting were completed using two equivalent passages, at the fourth grade level, from an IRI. Subjects practiced reading one passage independently (repeated reading) and the second passage while listening to a fluent oral rendition by the researcher (listening-while-reading). Rate and accuracy scores were analyzed using a two-way ANOVA (treatment by pretest/posttest). The gains made from pretest to posttest for both treatments were significant for both reading speed and reading accuracy. No significant differences between methods for speed and accuracy were detected, and no significant interactions between treatment and gains were found.

IV-13 Other factors related to reading

Davis, Zephaniah T. (1987, January/February). Effects of time-of-day of instruction on beginning reading achievement. *Journal of Educational Research, 80,* 138-140.

Undertakes a study to determine whether time-of-day of reading instruction influences pupils' beginning reading development. A total of 100 pupils were from 28 grade 1 classrooms in a California school district where reading instruction occurred either during the first period or the last period of the school day. The 100 cases were randomly drawn to fill each of the following four design cells: early/high ability, early/low ability, late/high ability, and late/low ability. Criterion for high or low ability was determined by pretest scores on the CTBS. An alternate form of the CTBS was administered as a posttest. ANCOVA techniques revealed a statistically significant main effect for time-of-day of instruction, but not interaction between time and ability. Children who received instruction in the afternoon tended to do better than those who received instruction in the morning.

Jordan, Thomas E. (1988, October). A longitudinal, replicated analysis of low achievement in reading at age 7. *Contemporary Educational Psychology, 13,* 371-381.

Seeks to determine whether success and failure in beginning reading can be predicted from data collected at an earlier age. Data were gathered prospectively from birth to age 6 in the home and grouped in four predictor models: somatic, developmental, family, and maternal. The number of subjects varied from one data set to another but ranged from 145 to 303 at age 78 months and from 90 to 236 at age 84 months. The WRAT was administered as the criterion measure of reading performance. A WRAT score at or below minus one-half standard deviation below the mean was considered failure to make satisfactory progress in reading. All children had normal or better intelligence on a standardized measure. Multiple regression analyses were performed in analyzing the data. The developmental model was found to be the best of the four models at predicting success of failure on the WRAT.

McGee, Rob, & Williams, Sheila. (1988, Winter). Childhood depression and reading ability: Is there a relationship? *Journal of School Psychology, 26,* 391-394.

Reexamines findings of an earlier report concluding an association between childhood depression and reading ability and claims that the conclusions are not supported. In particular, it is contended that research into the correlates of depression needs to be multivariate rather than univariate.

Barwick, Julia; Valentine, Elizabeth; West, Robert; & Wilding, John. (1989, June). Relations between reading and musical abilities. *British Journal of Educational Psychology, 59,* 253-257.

Cites results of two studies in which children with a wide range of reading ability were administered a musical ability battery and relations noted. Study 1 included 16 children, ages 7-6 to 10-6, and Study 2 involved 40 children, ages 6-6 to 11-5; all subjects were from the same school in South London which provides special instruction for children with problems in reading. In both studies, the Bentley test of musical ability, the digit span subtest from the British Ability Scales, and the Schonell Graded Word Reading Test were administered. The Bentley consists of four subtests: pitch discrimination, tonal memory, chord analysis, and rhythmic memory. It was found that scores on tonal memory and chord analysis were correlated significantly to RA on the Schonell with CA and IQ partialled out.

Eldredge, J. Lloyd; Quinn, Bill; & Butterfield, Dennie D. (1990, March/April). Causal relationships between phonics, reading comprehension, and vocabulary achievement in the second grade. *Journal of Educational Research*, *83*, 201-214.

Examines the causal relations existing among three measures of reading achievement: phonics, comprehension, and vocabulary. Subjects were 504 second graders from 24 classrooms in nine schools. The comprehension and vocabulary sections of the GMRT and an 81-item phonics test were administered in September and again in May. A cross-lagged panel analysis was used to examine causal relationships among measures, with path analysis used to provide an additional check against the findings obtained from the cross-lagged analysis. The results indicated that phonics knowledge has a causal impact on gains in both of the other scores; reading comprehensionn has a causal effect on gains in vocabulary scores. Findings were verified by the path analysis procedures. Data were collected from another group of 1,585 second-grade pupils over an eight-months period with the same instruments. Results verified findings of the first sample. The authors concluded that phonics instruction designed to aid pupils in recognizing the consistent graphophonic patterns of English should be stressed in primary grade reading instruction, and that instruction should be comprehension focused.

IV-14 Factors related to reading disability

Vellutino, Frank R., & Scanlon, Donna. M. (1989, December). Some prerequisites for interpreting results from reading level matched designs. *Journal of Reading Behavior*, *21*, 361-385.

Discusses conflicting interpretations of specific patterns of results from contrasts of poor and normal readers matched either for CA or reading level (RL). A main concern was the ambiguity inherent in interpreting results comparing CA and RL matched groups on cognitive tasks that could be affected by reading ability. It was argued that causal inferences that might be prompted by a given pattern of results are permissible only (1) when that pattern is observed with a high degree of consistency on a wide variety of relevant cognitive tasks, including some which are not readily influenced by experience in reading; (2) if the data are organized by a reasonably plausible theory of reading disability; and (3) if the hypotheses generated by this theory are supported by independent research.

Juel, Connie. (1988, December). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of Educational Psychology*, *80*, 437-447.

Examines the literacy development of children from first through fourth grade. Subjects were 54 low SES children attending one large elementary school. A variety of formal and informal measures of ability and achievement related to literacy were periodically or recurrently administered over the span of the study. Of particular interest was the longitudinal performance of low achievers compared with average and high achievers as determined on the ITBS reading comprehension test given at the end of grade 1. Results showed that poor reading achievement at the end of first grade strongly predicted poor reading at the end of fourth grade. A tendency for poor readers to become poor writers also was noted Children who became poor readers entered first grade with little phonemic awareness. Subsequently, they progressed slowly in decoding skills so that their achievement at the end of fourth grade was not equivalent to that of good readers at the beginning of second grade. Spelling-sound knowledge also developed slowly for poor readers and writers as did listening comprehension. Poor readers' exposure to print, whether in or out of school, was substantially lower than for good readers. Indeed, throughout the span of the study, the amount of reading that was done seemed to influence the amount of skill growth later observed in reading and writing. Good readers also exhibited more positive attitudes toward reading than did poor readers.

EHRI, LINNEA C. (1989, June/July). The development of spelling knowledge and its role in reading acquisition and reading disability. *Journal of Learning Disabilities, 22*, 356-365.

Reviews the research on reading and spelling development for dyslexics and nondyslexics and suggests that the phonological deficits that dyslexics exhibit are not neurological in origin but are primarily experiential. The thesis proposed is that dyslexics exhibit phonological deficits because they have not learned to read and spell successfully. Demonstrating with findings from previous studies, the reviewer suggests that phonological awareness develops through a reading context and through instruction. Readers learn to divide words into phonemes when they learn to read and spell an alphabetic orthography. People who fail to develop adequate reading and spelling skill are those who have not internalized the spelling system as part of their phonological knowledge because they did not receive reading and spelling instruction to promote the internalization.

HAYES, ELISABETH R. (1988, Fall). A typology of low-literate adults based on perceptions of deterrents to participation in adult basic education. *Adult Education Quarterly, 39*, 1-10.

Proposes a means to identify subgroups of low-literate adults through use of a typology based on deterrents to participation in adult basic education (ABE). A data base of 160 ABE students used in a previous study, all reading at or below sixth grade level, served as the sample. Participants filled out a 32-item Likert-type scale on which they were to indicate how important each item was as a deterrent to participation prior to their enrollment in ABE classes. Cluster analysis was used in developing the typology with individuals clustered according to factor scores on five deterrent factors. Six clusters or types were identified according to their scores on the five deterrent factors, ranging in size from 2.5% to 45.9% of the sample.The latter type represented individuals most likely to participate in ABE: younger women with a relatively high level of educational attainment [mean = 9.3 years] who for the most part were free from dispositional kinds of barriers as well as from family responsibilities leading to situational barriers.

FLETCHER, JACK M.; ESPY, K.A.; FRANCIS, DAVID J.; DAVIDSON, KEVIN C.; ROURKE, BRYON P.; & SHAYWITZ, SALLY E. (1989, June/July). Comparisons of cutoff and regression-based definitions of reading disabilities. *Journal of Learning Disabilities, 22*, 334-338, 355.

Assesses the comparability of two approaches to defining reading disabilities: one based on cutoff scores that determine adequate IQ and reading disability levels, and the other based on the same scores adjusted for regression artifacts. The 1,061 subjects were selected from a data base of more than 2,500 children who had been evaluated for learning disabilities. In addition to a neuropsychological evaluation on the Halstead-Reitan Neurological Battery for Children (HRB), all children had been administered the WISC and the WRAT. Subjects selected were between 9 and 14 years old, had obtained WISC full scale IQ scores (FSIQ) of above 79, and were free from any sensory or acquired neurological problems. From this group, children whose WRAT reading standard scores were below 93 were classified as RD. Children also were classified on the basis of reading scores consistent or inconsistent with their FSIQ scores using a 15-point criterion. Variations in the two definitions were found to substantially differentiate between children who were identified as reading disabled. Neither definition was adequate for identifying children with specific neurological skill deficiencies as specified on selected HRB scales.

RAYNER, KEITH; MURPHY, LORNA A.; HENDERSON, JOHN M.; & POLLATSEK, ALEXANDER. (1989). Selective attentional dyslexia. *Cognitive Neuropsychology, 6*(4), 357-378.

Presents a case study of a university professor who was classified as a developmental dyslexic when he was a teenager. His reading comprehension, assessed on the WRAT and the seventh and eighth grade level passages of a basal placement test, was found to be markedly inferior to his listening comprehension. In addition, his reading rate was slow. Diagnostic procedures were applied to examine his word retrieval and word recognition skills. While these tests revealed that he had some type of word retrieval problem, subsequent testing indicated that a major contributor to his reading problem was a selective attentional deficit in which letters from words in parafoveal vision interfered with his processing of the fixated word. When parafoveal vision was restricted, by using a moving window paradigm in which letters outside a small, centrally fixated window region were replaced with Xs, the subject's reading performance was better than when an entire line of text was present. Implications of these findings for developmental dyslexia were discussed.

DALBY, J. THOMAS. (1985, July). Taxonomic separation of attention deficit disorders and developmental reading disorders. *Contemporary Educational Psychology, 10*, 228-234.

Compares the behavior ratings and psychometric profiles of 41 boys diagnosed as having attention deficit disorder with hyperactivity (ADD) and 112 boys with developmental reading disorders (DRD). Two groups of age-matched boys served as controls, one group with no reading difficulties and one group with no attention problems. All ADD and DRD children were given a WISC-R, a WRAT, and the Denver Reading and Spelling Test; Conners' rating forms were completed by teachers and parents. Controls were administered some of the same measures. There were significant differences between ADD and DRD children in scores on reading, spelling, and arithmetic, with all favoring the ADD group. Achievement deficits of DRD children were more severe than those of ADD children. The two groups did not differ significantly on full scale or performance IQ; ADD children had significantly higher verbal IQ scores than did DRD children. The findings were interpreted as lending support to the conclusion that ADD and DRP are distinct and separate groups of disorders.

RECHT, DONNA R., CLADWELL, JO ANNE; & NEWBY, ROBERT F. (1990, Spring). Alternative instructional strategies for dysphonetic spellers. *Reading Improvement, 27*, 26-30.

Tests dyslexic readers, subtyped as dysphonetic or dyseidetic to determine if they have the ability to auditorially analyze words into the sounds needed for phonics-based spelling instruction. Subjects were 43 dysphonetic and 9 dyseidetic readers between the ages of 8 and 11 years. The division of words into sounds subtest of the Test of Awareness of Language Segments was used to assess ability to segment words. The segmentation skills of dysphonetic subjects were at a first grade level. They were found to have significantly lower scores in word segmentation as compared with dyseidetics. It was suggested that dysphonetic dyslexics lack the sound segmentation skills that are necessary to benefit from sound-symbol spelling instruction beyond basic words and word patterns.

Dyck, Norma, & Sundbye, Nita. (1988, Summer.) The effects of text explicitness on story understanding and recall by learning disabled children. *Learning Disabilities Research, 3*, 68-77.

Compares the effects of two methods of achieving text explicitness on story comprehension and recall of LD children. Subjects were 36 LD pupils, between 10 and 13 years old, selected from a small midwestern elementary school. Selection was based on at least 90% word recognition accuracy on two second grade passages taken from a commercially prepared IRI. Using a stratified random sampling procedure based on word recognition and comprehension performance on the IRI, subjects were assigned to one of three groups: control, which required reading of a simple narrative passage; explicit text, which required reading the control passage with the addition of written supportive information; and questioning, which required reading the control passage as oral questions guided children in deducing elaborations included in the rewritten passage. MANOVA procedures were applied to the 3 conditions × 2 time of recall (immediate, delayed) factorial design. The dependent variables were silent reading rate, rating of story interest, story retelling, answers to central event questions, answers to goal structure questions, and self-ratings of overall story understanding. It was found that elaboration of passage information enhanced story comprehension when ratings of story comprehension and questions were used as dependent measures. Adding elaborative content had no effect on retelling, silent reading rate, or story interest. The questioning procedure was as effective for LD children as was the reading of the explicit version. A post hoc study comparing the performance of LD children with that of younger normal children resulted in the latter outperforming LD pupils on nearly every measure, even though conditions were similar for the two groups.

Ip, Wang Hong, & McCormick, Sandra. (1989-1990, Winter). A study of reading comprehension problems of learning disabled students. *Journal of Reading Education, 15*(2), 36-44.

Assesses the responses of 90 teachers working in programs for LD students to a survey questionnaire about their students' reading instructional needs. Of the respondents, 23 were primary grade, 25 intermediate grade, 28 middle school, and 14 senior high teachers. Teachers specified the total number of students in their LD classes having reading problems, the number having reading comprehension problems along with other reading problems, and the number having reading comprehension problems exclusively. As a reliability check, 10% of the teachers were randomly selected and their Individualized Education Programs (IEPs) were examined. No discrepancies were found between teachers' estimates of problems and the IEPs written for instruction. Of the 1,453 students taught, 86% were reported as having both reading comprehension problems and other reading problems, while 5.8% were reported as having comprehension problems exclusively. No overall significant differences were found for grade levels; however, there was a significant difference between primary and intermediate pupils versus middle school and high school students. More older than younger LD students were identified as having comprehension difficulties. After examining textbooks and talking to LD teachers, the researchers concluded that more information on reading comprehension should be made available to LD teachers.

Sindelar, Paul T.; Monda, Lisa E.; & O'Shea, Lawrence J. (1990, March/April). Effects of repeated readings on instructional- and mastery-level readers.

Journal of Educational Research, 83, 220-226.

Asks whether the effects of repeated readings are comparable for LD and nondisabled readers who were matched for reading ability. Subjects included 25 LD pupils in grades 3 through 5 and 25 nondisabled readers in grades 2 through 5, matched for fluency and comprehension on two screening passages. In each group, 17 children read the screening passages at instructional level and 8 others read them at mastery level. Instructional level was defined as average reading fluency on the screening passages of 50 to 100 words per minute (WPM) with two or fewer errors; children who read faster than 100 WPM were considered to be reading at mastery level. Subjects then were given two additional grade 3 level passages to read, one to be read once and one to be read three times. Data collected included WPM, errors per minute (EPM), and number of propositions retold (NPR). Fluency was defined as the number of words read correctly divided by the total reading time and the number of errors divided by the total reading time. Comprehension was assessed using a story retell procedure, with number of propositions as the dependent variable. Both reading rate and recall improved significantly with repeated readings for both mastery level and instructional level readers. It was concluded that the effect of repeated readings was equally effective for LD and nondisabled readers.

BROPHY, NANCY E. (1988, Fall). Reading performance of learning and nonlearning disabled students. *Missouri Reader, 13*(1), 15.

Proposes to determine whether LD pupils progress in reading in a manner similar to the non-LD pupil, and whether the ITBS accurately reflects reading abilities of LD pupils. Subjects included 15 seventh graders and 15 eighth graders, all having records of ITBS scores going back six years. A randomly selected group of 30 non-LD pupils was included. Following collection of ITBS scores, 4 pupils from the LD group were administered an RMI. Statistical analysis indicated that LD children did not progress in reading in a stable and continuous manner as did non-LD children. The pattern of scores for the LD group was unpredictable over time. Significant increases in the reading scores of the LD group stopped at grade 5 on the ITBS. As grade level increased, there was a concomitant increase in the number of LD children reading below grade level. Analysis of the RMI patterns indicated that pupils had more specific reading strengths than the ITBS score indicated.

TAYLOR, H. GERRY; LEAN, DEBRA; & SCHWARTZ, SYBIL. (1989, June). Pseudoword repetition ability in learning-disabled children. *Applied Psycholinguistics, 10,* 203-219.

Reports the development and administration of a test for pseudoword repetition with a sample of 24 LD children, ages 7 to 12. In addition to determining the psychometric properties of the test instrument, the researchers investigated associations between repetition skills and achievement in reading, spelling, and math, and the association of the repetition task with other measures of phonological skills, such as immediate verbal memory, serial verbal recall, and segmentation and blending abilities. Subjects took nonsense words; vocabulary, block design, and digit span subtests of the WISC-R; the reading subtest of the WRAT-R; and the reading of symbols, spelling of sounds, sound analysis, and sound blending subtests of the GFW. They also completed a test of memory for the serial order of rhyming and nonrhyming letters. Twenty non-LD children served as a control group. Group difference was significant on pseudoword repetition, with LD children receiving lower scores. Test-retest reliability (r = .89) substantiated psychometric adequacy of the pseudowords instrument. Performance on the pseudowords was closely associated with reading and spelling scores, but not with arithmetic scores. Digit span was associated with WRAT-R reading and arithmetic, serial recall-rhyming letter sets with WRAT-R arithmetic, serial recall-nonrhyming letter sets with WRAT-R reading, and GRW sound analysis with WRAT-R reading. Pseudoword performance was the best single predictor of three of the four reading and spelling aptitudes.

Chase, Christopher J., & Tallal, Paula. (1990, June). A developmental, interactive activation model of the word superiority effect. *Journal of Experimental Child Psychology, 49*, 448-487.

Compares subjects at different stages of reading development in their ability to perceive letters present within words, pseudowords, and unpronounceable nonwords. The subjects were 12 normal adults, 12 dyslexic children, 12 normal children matched to dyslexics by CA, and 12 normal children matched to dyslexics by RA. All normal children were matched to dyslexics by sex, IQ, and SES. While dyslexics had a reading quotient equal to or less than .85, normal children had a reading quotient of .90 or better. Using tachistoscopic apparatus, all subjects were shown individual four-letter words, four-letter pseudowords, and four-letter nonwords. After the display of each stimulus, a mask was superimposed on the letter field and two letters appeared immediately above the target letter. Subjects were asked to indicate which of the two letters had been displayed in that position. Various analyses indicated adults excelled in exhibiting the Word Superiority Effect (WSE); that is, they were better able to identify letters in the context of words and pseudowords than in random strings. Young normal readers also demonstrated the WSE, but their ability to do so in pseudowords was less than that of adults. No WSE was demonstrated by dyslexic children.

Englert, Carol Sue, & Thomas, Carol Chase. (1987, Spring). Sensitivity to text structure in reading and writing: A comparison between learning disabled and nonlearning disabled students. *Learning Disability Quarterly, 10*, 93-105.

Focuses on the differential ability of LD pupils and regular class pupils to recognize and produce details consistent with a given text structure. Specifically, the study explored these questions: (1) Do LD children developmentally acquire text structure ability, (2) do LD pupils differ from low- and normally-achieving regular class children in their use of text structures in reading and writing, (3) do major text structures vary in their saliency to children, and (4) what is the relation between text structure knowledge in reading and writing? Third and fourth graders and sixth and seventh graders were compared. LD children (n=36) were matched to low achievers and to 36 normal achievers. Subjects were presented with paragraphs of description, enumeration, sequence, and comparison/contrast, and two target and two distractor sentences. They rated the degree of fit. Subjects wrote sentences to complete paragraphs. Older subjects were superior to both regular and LD pupils. Normal readers were better at detecting inconsistencies than were LD subjects. No significant differences appeared between younger and older LD subjects on target items; other age differences were found for LD matched subjects and for normal subjects. LD subjects differed from LD matches and from normal pupils in their ability to generate text structure. Results revealed a significant relation (r=.51) between reading and writing scores, with discrepancies increasing with the decrease in ability level.

Bentin, Shlomo; Deutch, Avital; & Liberman, Isabelle Y. (1990, February). Syntactic competence and reading ability in children. *Journal of Experimental Child Psychology, 49*, 147-172.

Studies, in three experiments, the relation between syntactic competence and aural word identification in subjects with different levels of reading ability. In Experiment 1, 28 adults (fluent readers) were presented with 104 short sentences prerecorded on tape. White noise was superimposed on target words within each sentence, with half the targets being syntactically congruent with the sentence, and the other half being incongruent. Subjects were asked to identify the masked words. ANOVA results indicated that aural identification of words within sentences is influenced by their congruency. A similar technique was used in

Experiment 2, in which subjects were 15 good readers selected from a population of fourth graders, and 19 RD children who were at least in fourth grade. Disabled readers were inferior to good readers in syntactic knowledge and in ability to use syntactic context to help identify words. Experiment 3 was conducted to generalize previous findings to poor readers within regular classes. Subjects were 15 poor readers selected from the same population of fourth graders as was used in Experiment 2 to find a matching group for the good readers in that experiment. Matching was based on ability to decode voweled pseudowords and on IQ. However, performance on an unvoweled sentence reading task was markedly inferior for the poor readers. ANOVA results suggested that, while good and poor readers did not differ in syntactic awareness, good readers excelled in ability to use syntactic knowledge.

SMITH, SUZANNE T.; MACARUSO, PAUL; SHANKWEILER, DONALD; & CRAIN, STEPHEN. (1989, December). Syntactic comprehension in young poor readers. *Applied Psycholinguistics*, 429-454.

Contrasts in two experiments the syntactic abilities of good and poor reading second graders. Both experiments were designed so that ability to process spoken sentences containing relative clauses might be explored without confounds. Subjects for both experiments were selected from four second grade classrooms in a suburban public school. Subjects were assigned to a good reader group (n=18) or a poor reader group (n=16) based on their performance on the Decoding Skills Test and teacher judgment of reading ability. All subjects displayed average or better receptive vocabulary on the PPVT. Experiment 1 used two forms of an object manipulation test to assess children's comprehension of sentences. Subjects were read sentences in which the relation between subject and object varied in four different ways. ANOVA and Scheffe post hoc analyses applied to the data revealed no significant difference between reader groups in mean percentage of error responses. No main effect for Group X Sentence Type interaction was noted, although certain types of sentences containing relative clauses were more difficult than others for all pupils. Experiment 2 used two forms of a sentence-picture matching test. Both forms required children to respond to each relative clause sentence presented on tape by choosing the one picture out of two that represented it. Administration of each form of this test was counterbalanced with administration of each form of the object manipulation test used in Experiment 1. Results supported those of Experiment 1. Taken together the findings support the notion that the comprehension difficulties of poor readers cannot be attributed to syntactic lag.

BRUCK, MAGGIE. (1990, May). Word-recognition skills of adults with childhood diagnoses of dyslexia. *Developmental Psychology, 26*, 439-454.

Examines whether adults with childhood diagnoses of dyslexia experience persistent difficulty in component word recognition skills. Subjects were 20 college students with childhood diagnoses of dyslexia matched with two groups of control subjects, each having normal literacy skills and no previous history of reading difficulty. The first control group consisted of 20 college students matched with dyslexic subjects on the basis of sex, age, and educational level. The second control group consisted of 15 sixth graders matched with dyslexic subjects on the basis of reading comprehension and word recognition level. Experimental tasks assessed each subject's knowledge of spelling-sound correspondences, use of spelling-sound and visual information for word recognition, use of syllable information for word recognition, knowledge of orthographic segmentation, and use of context to facilitate word recognition. Results of ANOVA procedures applied to the data consistently documented dyslexic subjects' inferior use of word recognition skills, with patterns of performance being most similar to those of beginning skilled readers or dyslexic children. Dyslexics exhibited overreliance on spelling-sound information, syllabic information, and context for word recognition.

Bacon, Ellen H., & Carpenter, Dale. (1989, Spring). Learning disabled and nondisabled college students' use of structure in recall of stories and text. *Learning Disability Quarterly, 12,* 108-118.

Compares the use of story grammar and two types of text structure (comparison and causation) by LD and non-LD college students to determine if the use of structure in recall differs and if type of text organization effects use of structure. Subjects were two groups of 18 undergraduates ranging in age from 18 to 25. The LD students had been identified as learning disabled in verbal skills and were receiving special support services from the university. Non-LD students were matched to the LD group on sex and race. Three selections were taken from middle grade social studies textbooks. One had a causation structure, the second a comparison structure, and the third had clear story grammar components. Passages were presented in writing and on audiotape. After passages were presented, subjects retold everything recalled. Subjects were blocked into one of four subgroups: LD low SAT, LD average SAT, NLD low SAT, and NLD average SAT. No significant interaction was found between SAT verbal scores and LD group membership. No significant difference emerged between average and low SAT groups on structure. There were no differences between LD and NLD groups on story and comparison passages, but LD and NLD groups differed on the causation selection, as LD students scored significantly lower than NLD students. LD and NLD students also differed in the type of information recalled on the causation passage, with LD students having more difficulty with effect statements than with causal statements.

De Boy, James L. (1988, December). Metacognitive differences among at-risk and nonrisk college cohorts. *Psychological Reports, 63,* 811-818.

Examines metacognitive differences between minority at-risk and nonrisk college freshmen. Subjects were 45 freshmen who had been placed in developmental reading courses due to substandard performance on the Test of Literal and Inferential Reading (TLIR). A reference group was comprised of 30 freshmen who had achieved the standard or better on the TLIR and who were subsequently exempted from developmental reading courses. All subjects were given a test of reading comprehension consisting of three literal and three inferential questions. Administration of the reading comprehension test was preceded by a question asking subjects to predict their impending performance level on the test, and followed by a series of metacognitive questions probing subjects' own self-evaluations of their performance on the test. Both groups similarly predicted they would do well prior to and after taking the test. However, nonrisk students outperformed at-risk students in accuracy of test performance prediction and in justification for answers to inferential questions. Nonrisk students more often attributed accuracy in answering inferential questions to prior knowledge.

Fleisher, Barbara M.; Westfield, Elizabeth; & Bank, Joan. (1990, May). Raising literacy levels: A college/community agency/public school partnership. *Academic Therapy, 25,* 635-644.

Reports on a collaborative project for helping children with special literacy needs. Twelve behaviorally disturbed fifth and sixth graders at risk of school failure were selected to participate in the project. Collaborators were the staff of a college reading clinic who provided the children with experiences in whole language; the staff of a neighborhood self-help agency who provided children with counseling, home visits, and after school activities; and the staff from an innercity public school who identified the children and made facilities for the program available. Comparisons of pre- and post-test results on alternative forms of the WRMT after a five-month period showed significant gains for the children in word identification, word comprehension, and passage comprehension. The school principal, teachers, and counselors reported significant improvement in the children's attitudes and social behaviors.

Davis, John M., & Spring, Carl. (1990, January). The digit naming speed test: Its power and incremental validity in identifying children with specific reading disabilities. *Psychology in the Schools, 27,* 15-22.

Assesses within two studies the value of the Digit Naming Speed Test (DNST) for identifying RD children. In Study 1, 66 RD boys between the ages of 6.8 and 13.7 were closely matched with 66 average readers on the basis of sex, age, school, and father's occupational level. Digit naming speed (DNS) was measured during two timed trials. For each trial, a different series of 50 randomly ordered digits was shown on a card. Each subject was asked to read the digits as quickly and as accurately as possible, and the average speed for the two trials was computed. Also computed was the total number of errors made. Differences in the error rate of the two groups were not significant, but standardized age-corrected DNS effectively differentiated between average and disabled readers with an accuracy level of 83.3%. In Study 2, the proportion of word recognition variance accounted for by DNS after controlling for general intelligence was assessed. Ninety-two nondisabled readers with a mean age of 13.3 years were administered the DNST as in Study 1 and DNSs were corrected for age. Subjects were also given the Word Recognition subtest of the PIAT and the WISC-R. Commonality analysis of the data indicated DNS accounted for a significant proportion of word recognition variance beyond that accounted for by general intelligence. Results support use of the DNST for reading diagnosis.

IV-15 Sociocultural factors and reading

Entwisle, Doris R., & Hayduck, Leslie Alec. (1988, July). Lasting effects of elementary school. *Sociology of Education, 61,* 147-159.

Reports a follow-up study of first- through third-grade children in Baltimore four to nine years later in order to examine how influence of parents and teachers during the first three grades of school related to later academic performance. Scores on the COG, and the reading and mathematics subscores of the CAT and the ITBS were obtained from school records. Two regression models were used to explain the 1980 scores of the children who had earlier entries: a single-equation model including all variables from the earlier study, and a stepwise model with the earlier variables entered in order of explanatory power. Current COG scores were substituted for earlier IQ scores. For those attending white middle-class schools, parents' estimates of the child's general ability, and their estimates of the child's ability to do schoolwork relative to other children had significant effects on long term achievement. Children's own estimates and teachers' expectations occasionally predicted later performance. In working-class schools, major predictors were teachers' expectations in the first two grades and teachers' marks in third grade. Occasional predictors were sex, grade for arithmetic in first grade, and the children's own expectations. In the black, working-class school, parents' ability estimates had long-term effects. Other significant predictors were first-grade teachers' expectations and third-grade teachers' marks. The examiners conclude that continuity in achievement over a substantial period can be linked to social resources in children's early environments.

Oakland, Thomas, & Stern, William. (1989, Summer). Variables associated with reading and math achievement among a heterogenous group of students. *Journal of School Psychology, 27,* 127-140.

Examines the influence of various personal and familial characteristics on reading and math achievement of heterogeneously grouped students. Subjects were 372 children from 32 elementary and secondary schools. Stratified random sampling procedures delineated three age groups (CA 6-8, 9-11, and 12-14), two SES groups (low and middle), and three ethnic groups (Black, Anglo, and Mexican-American) with each cell of the design containing approximately 20 students. Data on each subject included: the WISC-R, selected scales from the System of Multicultural Pluralistic Assessment and two sets of the CAT or the Sequential Test of Educational Progress, each set given within a three year interval. Regression procedures using IQ as a predictor to reading and math achievement suggested cutoff points for 10% of the subjects who were overachievers and 10% who were underachievers (discrepant achievers.) A normal group consisting of 10% of the original sample was selected using a stratified random sampling procedure. Analyzing reading and math achievement data separately, chi-square procedures delineated the relation between discrepant achievement and various demographic variables. Multiple regression approaches to ANOVA determined familial differences between discrepant and normal achievers. Results indicated discrepant achievement was not attributable to race, IQ level, gender, family size, or structure. Both types of discrepant achievers tended to be born later than normal achievers. Lower SES blacks were underrepresented and middle SES blacks were overrepresented among underachievers in reading. Discrepant achievement was not found to be persistent over time.

Cory, Thomas Leon. (1989). The role of parental perceptions in learning to read. In Malcolm P. Douglass (Ed.), *Reading: A literary feast.* (pp. 235-247). Claremont, CA: Claremont Reading Conference.

Studies parental perceptions in relation to parent and child locus-of-control and reading achievement. Subjects, 60 pupils enrolled in a Resource Specialist Program, completed the N-S Reaction Survey, a measure of locus-of-control. Also completed were the ANSIE Form G and a Child-Study Questionnaire (CSQ) designed for the study. Scaled scores from the Reading Recognition and Reading Comprehension subtests of the PIAT served as dependent variables. Significant *F* values were reported for Self-Concept and Motivation on the CSQ. A significant negative coefficient of correlation was found between parental perceptions for pupil motivation and locus-of-control, and between parental perceptions for social-emotional behaviors in relation to locus-to-control. Chi-square analysis suggested no relation between SES and locus-of-control, but significant relations between SES and reading. Nonsignificant relations were found between parental responses to developmental history and pupil locus-of-control and between locus-of-control and reading. Findings suggest support for the use of parental perceptions when assessing children.

Jones, Molly M., & Mandeville, Garrett K. (1990, March/April). The effect of age at school entry on reading achievement scores among South Carolina students. *Remedial and Special Education, 11*, 56-62.

Investigates the relation between age and reading achievement for all 190,292 children in grades 1, 2, 3, and 6 who took the South Carolina Basic Skills Assessment program test (BSAP) in the spring of 1987. For purposes of analysis, pupils were classified as being younger, older/repeaters, or within the average age range for their grade, with further age classifications based on birthdays, occurring early or late in the school eligibility year. Children also were classified on the basis of sex, race (black or nonblack), and lunch payment status (assisted or nonassisted.) Chi-square tests indicated the proportions of children who failed in reading on the BSAP were higher for younger, male, black, and lunch assisted than for older, female, nonblack, and nonassisted pupils. Logistic regression analysis revealed that, within each grade classification, odds of failure were greater for younger than older children when sex, race, and lunch payment status were kept constant. Estimates of attributable risk confirmed that, for children in all grades, the effects of age at school entry were not as dramatic as were the effects associated with sex, race, or lunch payment status.

IV-16 Reading interests

Wiesendanger, Katherine D., & Bader, Lois. (1989, Spring). SSR: Its effects on students' reading habits after they complete the program. *Reading Horizons, 29,* 162-166.

Attempts to ascertain the follow-up effects on reading habits of a sustained silent reading (SSR) program. The summer reading of four heterogeneously grouped classrooms of children who had completed third grade was monitored. Two of the classes had been involved in SSR programs during third grade; two had not. Children were asked to return forms on a weekly basis indicating the number of minutes they had spent reading. Of the 93 pupils originally asked to participate, 54 returned the forms for at least eight weeks; 25 of these had participated in the SSR program. The average number of minutes per week reported as having been devoted to reading was 90 for the SSR group and 76 for the other group. Above average readers as determined by scores on the CTBS averaged more minutes per week than did pupils who received average or lower scores. The SSR program appeared to have least effect on the reading time of above average readers and greatest effect on the average group.

Ho, Laina. (1990, January). Singapore readers' responses to U.S. young adult fiction: Cross-cultural differences. *Journal of Reading, 33,* 252-258.

Undertakes a study to determine if American young adult fiction appeals to students from Singapore. A total of 103 students, ages 13 to 17, were interviewed as to their reading interests and as to what they liked about specific authors. Students were approached for interviews in a public library on Friday afternoons. All subjects were secondary students whose second language was English. Subjects gave as their reasons for reading: escapism, bibliotherapy, wish fulfillment, identification with characters, empathy, and gratification that teenagers can solve problems. Frequently cited authors read were Judy Blume, Paul Zindel, and S.E. Hinton.

Hall, Christine. (1989, Spring/Summer). The results of an informal inventory of the reading interests and backgrounds of underprepared college freshmen. *Forum for Reading, 20,* 15-18.

Examines the skills and interests of 285 underprepared freshmen at a large southern urban university. The results of an informal inventory administered to the students was compiled for two groups: those obtaining an average reading score of ninth grade on the NDRT, and those obtaining an average reading score of sixth grade. Similarities and differences were found between the two groups. Both groups chose "speed" as the skill they would most like to improve, although 25% more of the low achieving students made this choice than the higher achieving ones. Higher achieving students chose comprehension and study skills nearly as often as speed. Over 70% of all students favored reading magazines and newspapers most and novels least. With reference to magazines, no specific one was favored by more than 21% of all the students. Approximately half of the students indicated they regularly read the sports, entertainment, and front page sections of the newspaper while less than 20% indicated thay regularly read the editorial section. A question probing reading interests of the two groups showed a preference for contemporary titles at a rate of two to one.

IV-17 Attitudes and affect toward reading

Smith, M. Cecil. (1990, March/April). A longitudinal investigation of reading attitude development from childhood to adulthood. *Journal of Educational Re-*

search, 83, 215-219.

Conducts a longitudinal investigation of the development of attitudes toward reading among a group of 84 individuals. The white, middle-class subjects included 31 males and 53 females, ranging in age from 35 to 44. Of 1,596 participants in an earlier study as children, 409 were located and asked to participate in the current study; 84 agreed. Subjects received a 40-item questionnaire, the Adult Survey of Reading Attitudes (ASRA), plus several questionnaires inquiring into reading habits and perceptions of reading. Measures of reading attitude collected when subjects were in grades 1, 6, 9, and 12 and when they were young adults (five years after high school graduation) were then employed in a stepwise multiple-regression analysis to determine if they were predictive of ASRA scores. The later measures were stronger predictors of ASRA scores than were the measures given in grades 1 and 6. College graduates (n=28) had higher ASRA scores than did the high school only group (n=26). No significant differences were noted among the four occupational groups identified (professional, service, labor, and homemaker). Females had significantly higher positive attitude scores than did males. The early adult attitude measures accounted for about one-third of the variance on the ASRA.

RUSS, K. MARK III. (1989, Fall). Relating reading attitude to reading achievement in an East Los Angeles junior high school. *Reading Improvement, 26*, 208-214.

Surveys attitudes toward reading of seventh grade pupils in a predominantly Hispanic junior high school and notes the relation of attitude and achievement test scores. Four intact seventh grade classes, including one class for gifted and talented, with a total enrollment of 85 pupils were used. Attitudes were assessed by the Short Form Reading Attitude Survey, an 18-statement Likert scale measure. The reading vocabulary and comprehension sections of the CAT were used as the measure of reading achievement. Pearson product-moment coefficients between attitude and achievement scores were .323 for the gifted class and .07 for the other classes. Gifted pupils exhibited a more positive attitude toward reading than did the normal pupils, although both groups scored positively.

SHOWALTER, CHARLOTTE. (1990, Winter). Choices: Enhancing middle school Chapter One students' attitudes toward reading. *WSRA Journal, 34*, 13-22.

Ascertains whether 12 Chapter 1 middle school pupils' attitudes toward reading change when they are allowed to have a voice in the selection of their reading material. Pupils were given a reading interest inventory and the Heathington Reading Attitude Scale to determine attitudes toward reading. Subjects then planned what materials they would read during two days of Chapter 1 reading time, and what they would read as homework. Children maintained a reaction log to what they read, discussed what they read with the group, and had individual conferences with the Chapter 1 aide or teacher as they completed tasks. Over time, pupils read more tradebooks and plays. Scores on final attitude scales indicated children felt more positive about reading.

GUZZETTI, BARBARA J. (1990, March). Enhancing comprehension through trade books in high school English classes. *Journal of Reading, 33*, 411-413.

Reports changes in attitudes as measured by The Secondary Reading Attitude Assessment for one teacher's English classes after receiving instruction with three instructional strategies. Strategies introduced were character charts, visual representations of individual characters in a book; paradigms, graphic linkings of students' hobbies and interests to elements in the novel; and reader as raconteur, a teacher modeling strategy of retelling a story orally. ANOVA results showed no significant attitude changes for three advanced English classes but significantly improved attitudes in the general English class.

DWYER, EDWARD J., & REED, VALDA. (1989, Summer). Effects of sustained silent reading on attitudes toward reading. *Reading Horizons, 29*, 283-293.

Administers the Rhody Secondary Reading Attitude Assessment to 40 subjects from one school in the southeast United States to determine attitude toward sustained silent reading. Experimental and control groups were not equivalent in achievement level, in racial composition, or in grade or socioeconomic level. Thus, group data, rather than individual data, were used for comparisons. Overall scores of the experimental group dropped on the posttest, with boys' scores dropping while girls' scores gained slightly. No differences were found in the scores of the control group. When scores of the experimental and control groups were combined, boys had substantially poorer attitudes toward reading than did girls.

REUSING, VIRGINIA. (1989, Summer). The impact of daily sustained silent reading on the reading attitudes of first grade students. *Ohio Reading Teacher, 23*(4), 7-11.

Seeks to collect data on the relation between sustained silent reading (SSR) and reading attitudes and interests. The study was conducted with 23 first graders who participated in a SSR program for 15 minutes a day over a seven-week period. A reading attitude and interest survey designed by the teacher was individually administered to pupils prior to the beginning of the SSR program and again at the end of the seven-week period. The attitude survey consisted of five questions with responses marked on a 3-point scale. A statistically significant increase in positive attitude toward reading was found for four of the five questions. For the interest survey, pupils were asked to identify the kind of story they liked best, to name some of their favorite books, and to list hobbies or leisure interests. Prior to the SSR program, no child gave reading as a leisure interest; after the program, 16 children mentioned it.

MASON, TERRANCE C., & STIPEK, DEBORAH J. (1989, September). The stability of students' achievement-related thoughts and school performance from one grade to the next. *Elementary School Journal, 90*, 57-67.

Examines the consistency of children's beliefs regarding attainment, emotional experience, and task behavior over one year's time and across subject areas. During year one of the study, subjects were 77 fourth and fifth graders of various achievement levels from four schools in a large city. Subjects represented various ethnic backgrounds and SES levels, although most came from minority and lower to lower-middle-class SES homes. Due to attrition, only 31 subjects were considered as the longitudinal sample at the end of the second year of the study. A series of classroom observations, each 15 minutes in length, were completed on each subject. Half of the observations were made as the subject worked independently on reading, and half as the subject worked on math. Subjects' behaviors were coded every 15 seconds for attention to assigned tasks, off task activity, on task dialogue, socializing with others, waiting for help, or out of seat. In addition, pupils were interviewed with regard to their attributions for success or failure in reading and math. Finally, teachers were asked to rate children's performance and task behavior during independent work. Coefficients of correlation between year one and year two scores on all dependent variables indicated that academic performance as well as achievement-related cognitions or affects were stable over a one year period.

HILLERICH, ROBERT L. (1990, Spring). First graders' perceptions of reading and writing. *Illinois Reading Council Journal, 18*, 12-18.

Interviews 66 end-of-the-year first graders to determine how they viewed the acts of reading and writing. A series of seven questions were used in the interview, with five of them dealing with the understanding of the reading process. Knowing words was cited by 46% of children as the criterion for knowing when they had done a good job of reading. When asked if they liked to read, 91% replied in the affirmative and 62% said because it was "fun." All children related some technique that could be used in identifying an unknown word, with

73% indicating they would sound out the word. When asked about writing, no child gave a response indicating that writing was a means of communicating ideas.

REED, BEATRICE DIANA. (1990, April). Reading: 'High status' rhetoric, 'low status' reality. *Reading, 24,* 15-20.

Reports data from a three-month case study of the teaching and learning of reading in a British primary school. Data were collected from classroom observations and interviews with teachers, pupils, and parents. Teaching reading was seen as a passive practice involving little planning and development on the part of the teacher, as children progressed through the graded instructional materials used for teaching, and as a filler activity to occupy children while the teacher was engaged in other activities. Parental involvement seemed to focus on helping the child move through materials more rapidly, rather than on the high status value of being a reader. Children quickly learned that what was important was progressing through the graded reading materials, rather than that reading was an important activity in its own right. As pupils progressed through the junior school, reading seemed to shift to a low status activity that served as filler between important activities. Children were frequently unaware that there was any other purpose for reading than to move through graded scheme materials. Findings suggested that reading scheme materials can institutionalize pupils into perceiving reading in a given way, and that intentions and outcomes may differ.

IV-18 Personality, self-concept, and reading

COHEN, SHEILA G.; MCDONELL, GLORIA; & OSBORN, BESS. (1989). Self-perceptions of "at risk" and high achieving readers; Beyond Reading Recovery achievement data. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 117-122). Chicago, IL: National Reading Conference.

Reports on the impact of Reading Recovery on children's beliefs about their competence and capacity to direct their own learning activities as compared with other at-risk children and high achieving readers. Subjects were 138 first graders: 50 Reading Recovery participants, 49 other at-risk pupils, and 40 high achieving readers. The other at-risk children received daily small group remedial instruction for 45 minutes with a reading specialist. Both attribution and self-efficacy were assessed using two researcher-designed scales that asked children to rate causal and declarative statements. On the average, pupils in the Reading Recovery more often attributed their success in school to ability, effort, and mood, than did other at-risk children. The attributions of Reading Recovery children were similar to those found for the high achieving group. Specific differences among the three groups for each item measure are discussed.

COLEY, JOAN DEVELIN, & HOFFMAN, DIANNE M. (1990, April). Overcoming learned helplessness in at-risk readers. *Journal of Reading, 33,* 497-502.

Reports case studies on six sixth grade at-risk pupils who had received remedial reading help in resource rooms for a minimum of two years and who exhibited signs of learned helplessness and inadequate self-esteem. Three elements of the implemented program included teaching children how to use question response cues, double entry/response journals, and to self-evaluate in order to view themselves more positively as learners. Pupils were administered the Waetjen Self-Concept as a Learner Scale in September and again in March. All subjects viewed themselves more positively after program participation.

WAGNER, DANIEL A.; SPRATT, JENNIFER E.; GAL, IDDO; & PARIS, SCOTT G.

(1989, September). Reading and believing: Beliefs, attributions, and reading achievement in Moroccan schoolchildren. *Journal of Educational Psychology, 81*, 283-293.

Reports data collected in Morocco to assess subjects' metacognitive knowledge of reading skills and strategies, causal attributions, concepts of good readers, and reading achievement. Subjects in Cohort 1 were 350 first graders, followed for five years. Subjects in Cohort 2 were 464 fifth graders, assessed over three years. Subjects differed in age, grade repetitions, parental schooling level, preschool experience in rural and urban settings, linguistic and sociocultural backgrounds, and type of schooling. Metacognitive assessments included a Habits of a Good Reader Scale and a Reading Awareness Index. Causal attributions assessed were effort versus ability and internal versus external. Characteristics of a Good Reader assessed beliefs about types of Arabic speakers, types of schooling, and the importance of learning for boys and girls. Subjects also completed reading tests in Arabic, as well as cognitive measures. Structured interviews elicited family background information. No differences were found between boys and girls in reading performance or beliefs. First graders' concepts of good readers were important predictors of beginning reading success, but metacognitive knowledge was not. Most first graders chose effort over ability as more important for achievement. For fifth and seventh graders, however, metacognitive knowledge and causal attributions were both predictors of reading performance.

WALCZYK, JEFFREY J., & HALL, VERNON C. (1989, September). Is the failure to monitor comprehension an instance of cognitive impulsivity? *Journal of Educational Psychology, 81*, 294-298.

Uses an error detection paradigm to determine third and fifth graders' ability to monitor their reading comprehension. Cognitive tempo was measured with the Matching Familiar Figures Test (MFF). On the basis of MFF scores, 12 third graders and 17 fifth graders were classified as reflective; 13 third graders and 17 fifth graders were classified as impulsive; and 23 third graders and 14 fifth graders were excluded from subsequent analysis. All subjects orally read three passages containing incongruent information and reported any contradictory information they discovered. If a subject indicated a problem, the subject had to indicate what the problem was and to justify why the information was problematic. After a second reading, all subjects completed a multiple-choice/recall test on each passage. For both grade levels, those subjects classified as reflective detected significantly more inconsistencies than did those subjects classified as impulsive. Reflective subjects recalled significantly more of the passage information necessary for identifying inconsistencies. No significant cognitive tempo differences were found on overall recall/comprehension tests. Significant Pearson Product-Moment coefficients were found between overall recall/comprehension scores and comprehension monitoring.

PLÉH, CSABA; OLÁH, ATTILA; & ZÉTÉNYI, TAMÁS. (1988). Individual differences in story recall. *Text, 8*(4), 395-410.

Examines the relation between personality and story recall. Subjects were 119 high school graduates quasi randomly assigned to three conditions reflecting situations of instruction. These were: (1) intentional, which required students to read a short story and recall various propositional units in it; (2) incidental/scaling, which required subjects to read and rate the story according to various parameters on a semantic differential scale; or (3) incidental/moral, which required subjects to read and assign a moral to the story. Thirty minutes after the reading and again six weeks later, subjects were asked to write their recollections of the story including as many details as possible. An intelligence test and the 18 scales of the California Personality Inventory were administered to all subjects to be used as predictors of recall. Several indices were derived to characterize aspects of the recall protocols and several statistical procedures were applied to the data. The number of recalled propositional units was related only to IQ. However, a task × time × IQ interaction suggested that the relation between personality and recall was dependent upon instructional situations. Evidence is presented that indicates there are specific personality characteristics that influence both encoding and recall attitudes.

IV-19 Readability and legibility

Danielson, Wayne A., & Lasorsa, Dominic L. (1989, December). A new readability formula based on the stylistic age of novels. *Journal of Reading, 33*, 194-197.

Reports the development and testing of a new readability formula for determining the stylistic age of novels using 36 prose markers: (1) the total number of characters, words, and sentences, and the number of characters per word, per sentence, and words per sentence; (2) the total number and percentage of long words (more than nine characters) and short words (fewer than five characters); (3) the total number and percentage of eleven punctuation marks; (4) the total number and percentage of capital letters; and (5) the total number and percentage of five punctuation marks identifed as "rare marks." Twenty books were chosen from each 20-year period from 1740 to 1979. Five pages were selected at random, with one sentence randomly selected from one randomly selected paragraph on each page to be computer analyzed for stylistic markers. Fifty-three percent of the variability was accounted for by four encoding habits: sentence length, with sentences shortening over the 240 years; word length, with earlier authors using longer words; rare punctuation, with colons, dashes, exclamation points, semicolons, and parentheses diminishing over the years; and word shortening or informality. Two validation studies were conducted. Sixty-four percent of the variance in dating the test books could be accounted for by the four stylistic markers. Coefficients of dates with readability formulas were significant at $p < .001$, suggesting that stylistic age formulas could serve as readability formulas and could be used to date prose with reasonable accuracy.

Wood, Terry L., & Wood, William L. (1988, October). Addessing potential difficulties in comprehending fourth grade science textbooks. *Science Education*, 72, 561-574.

Evaluates 10 fourth grade science texts to determine if publishers' claims about appropriate reading level for intended readers are meaningless. Every 100-word passage in each text was evaluated using the Fry Readability Formula. Using data from 16,000 fourth graders in the standardization sample of the ITBS, cumulative frequency distributions of pupils' reading levels were constructed, using the same grade intervals as used for the text readability distributions. Range, mean, and standard deviation were determined, and frequency distributions were plotted for readability values and student reading levels. Intercomparative comprehensibility diagrams were constructed, where comprehensibility was defined as that percentage of a text which could be read with 50% or greater comprehension by pupils reading at a specific grade level. All but two of the text means fell within a range of plus or minus one year of grade level. Five of the texts had a mean readability level that exceeded publishers' level by more than .75 grade level. Five of the standard deviations equalled or exceeded one year. Frequency distributions suggested that neither the readability index mean nor the standard deviation adequately characterized the readability of the textbooks. Comprehensibility dropped considerably below the 50% level of comprehension for many pupils of lower SES standing, and only 3 of the 10 books were considered appropriate. Analysis suggested considerable variability between and within these science texts.

Oyetunde, Timothy O., & Umolu, Joanne J. (1989, November). A comparison of reader strategies on two versions of a newspaper editorial. *Reading*, *23*, 184-195.

Explores the effects of accurate levels as well as text characteristics (sentence length and complexity plus vocabulary load) on reader strategies as subjects read two versions of a newspaper editorial in a cloze format. One version based on the original article was at the postsecondary level using a Fry readability formula. The simplified version was rewritten to a grade readability level. Twenty Nigerian university students were the subjects. Of the 10 reading the original passage, 5 were at instructional level and 5 at frustration. On the simplified text, 5 performed on the independent level and 5 on the instructional level. Of the 500 miscues analyzed, 281 were selected from original text and 219 from simplified text. Twenty-eight percent of the miscues made on the difficult text were both syntactically and semantically appropriate. Fifty percent of the miscues on the simplified text were syntactically acceptable, compared with 35% on the difficult text. Sixty-three percent of the miscues on simplified text were semantically acceptable, compared with 33% on the difficult text. When comparing miscue patterns of subjects reading both texts at the different reading levels, the researchers concluded that choice of cues was affected more by text difficulty than by characteristics of the specific texts read.

O'Hear, Michael F., & Ashton, Patrick J. (1989, Fall/Winter). Main idea clues. *Forum for Reading*, *21*, 58-66.

Examines the relation of main idea clues to readability in assessing the difficulty of college textbooks. Included in this analysis were four writing and three introductory sociology texts considered representative of college textbooks. A Flesch readability analysis of each text revealed that the writing texts were uniformly lower than the sociology texts. Main ideas were identified, and clues were tablulated for all paragraphs, excluding chapter summaries. Main idea clues were expressed in terms of the percentage of total paragraphs in which they appeared. Computed were coefficients of correlation between the frequency of usage of each type of main idea clue and readability scores. Following standard regression techniques, a reduced multiple regression model was developed. The strongest coefficients with readability were frequency of main ideas in the first position ($r = .65$) and last position ($r = -.61$). While these were both strong correlations, their signs indicated that frequency of main idea in the first position was associated with increased Flesch scores (indicative of easier text), while placement of the main idea in the last position was associated with lowered scores (more difficult text). Five variables met the criteria for a reduced multiple regression model: first position, repetition, key words, examples, and subheads. This model accounted for approximately two thirds of the variance in the readability scores. The presence of main ideas in the first position in the paragraph was found to be the strongest predictor of readability, accounting for about three fourths of the explained variance. Repetition also was found to be a significant predictor of readability; it accounted for slightly less than half of the explained variance. None of the other predictors in the reduced model was statistically significant.

Lewis, Clive, & Walker, Peter. (1989, May). Typographic influences on reading. *British Journal of Psychology*, *80*, 241-257.

Reports two experiments aimed at examining the perceived qualities of typefaces and the influence of such qualities on individuals' responses to words. Subjects for both experiments were undergraduate student volunteers or staff at a British university ($n = 20$ and 18, respectively). In Experiment 1, subjects were assigned to one of two groups in which they were to respond to a set of four adjectives, with each group using a different set of words. Words were paired so that two were representative of relatively literal qualities and two were representative of more figurative or metaphoric qualities. Subjects were to press one key for particular words and a key with the opposite hand for other words. Each word appeared in a typeface which was either consistent or inconsistent with its meaning. Reaction times for inconsistent stimuli were significantly slower than those for consistent trials. For Experiment 2, the same rating procedure was used to elicit subjects' judgments of the attributes of various animals. The names of the animals were used as targets in a binary decision task, and each name appeared in a typeface possessing qualities which were either congruent or incongruent with those of the animal. Subjects responded according to whether they considered the animal to be heavy or light, or fast or slow. Responses on trials in which the animal and typeface possessed conflicting attributes were significantly slower than responses when the two were congruent. It is argued that typographic features of words can access a semantic code and the code can then interact with the derivation of a linguistic code specifying the meaning of the word and with postlexical access decision processes.

McGregor, Anne K. (1989, July). The effect of word frequency and social class on children's reading comprehension. *Reading*, *23*, 105-115.

Hypothesizes that comprehension will be improved by substituting a percentage of high frequency words for less frequent words in a primary text. Subjects included 545 children, ages 8 to 12, from six primary schools in Glasgow, Scotland. There were two schools each from low, middle, and high socioeconomic areas. One story, selected from a basal reader, was adapted into high and low frequency versions. The story was divided into blocks of six words each, and, with one-half of the blocks, a low frequency word was replaced with a synonymous high frequency word of the same part of speech and, where possible, similar in length. In a like manner, the low frequency version was developed. Story versions differed in frequency values of about 12% of the words. To check comprehension of the story, a 16-item multiple-choice test was developed. Within each of the six classrooms, half of the boys and half of the girls were randomly assigned to either the high or low frequency version of the story. Mean scores on the comprehension test were computed for each of the independent variables: story version, school, age, and sex. The mean score for the high frequency version was greater than that for the low frequency version, mean scores for schools in deprived areas were lowest, and scores increased with age. Mean score for girls was marginally higher than that for boys. The last variable, sex, was not found to have a significant effect, whereas the first three variables did have a significant effect on comprehension scores.

Namukwai, Violet, & Williams, Ray. (1988, Autumn). The readability of government reports: A case study from Zambia. *Reading in a Foreign Language*, *5*, 205-227.

Examines 13 recently published Zambian government reports to determine characteristics that contribute to their difficulty level. Analyzed aspects included lexis, syntax, text organization, punctuation, and readability problems in a combination of these factors. It is noted that the government reports are poorly written in terms of all of these factors, and that if time were spent on improving the writers' writing skills, the readers' task would be made easier.

Duffy, Thomas M.; Higgins, Lorraine; Mehlenbacher, Brad; Cochran, Cynthia; Wallace, David; Hill, Charles; Haugen, Diane; McCaffrey, Margaret; Burnett, Rebecca; Sloane, Sarah; & Smith, Suzanne. (1989, Fall). Models for the design of instructional text. *Reading Research Quarterly*, *24*, 434-457.

Replicates and extends an earlier study comparing a segment from a high school history text and revisions of that text by text linguists, composition teachers, and Time-Life writers. Differences in the current study included asking subjects to rate how interesting the text was and how easy the text was to learn relative to the textbooks they used in their courses. Also of interest was a concern for which parts of the text were recalled better as a function of each type of revision. Students' recalls were studied in relation to the position of each idea in the hierarchical structure of the text read. Other flaws of the earlier study such as stability of population, consistency of examiner, and age-appropriateness of materials were corrected in the study. Students were randomly assigned to condition and, within conditions, to high or low ability groups on the basis of ITBS scores. A passage from the earlier study served as the material. Free-recall and short-answer tests, ratings of interest, and ease of learning measures all suggested that the eleventh grade subjects preferred the version written by the composition teachers to the other versions.

SCHUMM, JEANNE S.; KONOPAK, JOHN P.; READENCE, JOHN E.; & BALDWIN, R. SCOTT. (1989). Considerate text: Do we practice what we preach? In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 381-389). Chicago, IL: National Reading Conference.

Examines the extent to which the professional writing of literacy scholars is consistent with their own recommendations for writing by others and validates an instrument offered as a guide for editorial reviewers and writers. The sample consisted of 32 articles accepted for publication in the National Reading Conference Yearbook. The Considerate Text Inventory, designed by the researchers, assesses writing organization, discourse consistency, explication, and the ability for clarification, interpretation, and application of information for the reader (metadiscourse). Each of the 22 items is rated from 0 to 5, with scores in the upper range indicative of considerate text. The mean score of the 342 articles examined was 4.30 with a range of 3.23 to 5.00. Metadiscourse and explication were noted as strengths of the manuscripts. Authors did well in providing background knowledge, in their consistency of rationale and literature review, and in the inclusion of facilitating contextual aids. Organization and discourse consistency were notable weaknesses with writers using long, convoluted sentences, lacking justification for using procedures, and failing to provide information for any replication attempts.

KIRSCH, IRWIN S., & MOSENTHAL, PETER B. (1990, Winter). Exploring document literacy: Variables underlying the performance of young adults. *Reading Research Quarterly*, *25*, 5-30.

Identifies critical variables that underlie the performance of young adults on a diverse set of document literacy tasks. Scores were analyzed on document tasks from the Young Adult Literacy study conducted by the National Assessment of Educational Progress (NAEP) in the United States in 1985. The 61 tasks (and associated documents) that make up the document scale of the NAEP assessment were parsed using a grammar developed by the researchers. Based on the parsings, the researchers identified document variables (based on the structure and complexity of the document), task variables (based on the structural relation between the document and the accompanying question or directive), and process variables (based on strategies used to relate information in the question or directive to information in the document) that underlie the difficulty of the tasks for the total population and for major subgroups. The variables identified accounted for 89% of the variance for the total population of young adults, and for at least 80% of the variance for all ethnic/racial groups and for young adults at all educational levels except for those with 0 to 8 years of schooling. It was suggested that the identification of these variables and the grammar of documents on which they are based provide a foundation for building an explanatory model that could systematically account for the constructs underlying document processing.

IV-20 Literacy acquisition

Villaume, Susan Kidd, & Wilson, Lavisa Cam. (1989, September). Preschool children's explorations of letters in their own names. *Applied Psycholinguistics, 10,* 283-300.

Explores children's early strategies for understanding the letters in their own names. Subjects for the study were 34 preschoolers, ranging in age from 2 to 5. All had passed the criterion for identifying their own names when presented in arrays of three different name cards. To observe children's abilities to identify letters, form letters both quantitatively and qualitatively, engage in levels of descriptive analysis concerning the writing of letters, and order letters in their own names, each child was presented with a series of five ordered tasks. These required writing, dictation, arranging letter cards, naming letters, and modeling on one's own name. Analysis was first directed at uncovering general paterns of development in children's understanding of letters. Based on these findings, children were then assigned to groups reflecting different levels of integration of print and oral scripts possessed with regard to letters in their own names. In general, the Level 1 group possessed no specific conventional letter knowledge and were unable to print or describe initial letters. The Level 2 group possessed the ability to label at least one letter conventionally, but no more than two. These children were deemed as beginning to explore associations between letter shapes and names. The Level 3 group named more than half of the letters conventionally and were deemed to be at the final stages of integration. More specific performances on the five ordered tasks by children at each level are described.

Byrne, Brian, & Fielding-Barnsley, Ruth. (1989, September). Phonemic awareness and letter knowledge in the child's acquisition of the alphabetic principle. *Journal of Educational Psychology, 81,* 313-321.

Studies acquisition of the alphabetic principle in preliterate Australian children, 3 to 5 years old. In five separate experiments, subjects learned to associate pairs of symbols with their associated spoken words. Studies involved segmentation training, word reading, transfer tests, segment identity training, and letter-sound training. Researchers concluded that preliterate children did not spontaneously grasp the alphabetic principle when taught to read small words arranged to reveal that principle. Reliable performance on transfer tasks was achieved by subjects who understood phonemic segmentation of the speech items and the identity of their initial segments and those who had learned the graphic symbols for the sounds. Phonemic awareness and grapheme-phoneme knowledge were needed in combination for acquisition of the alphabetic principle. Neither was sufficient for acquisition of the alphabetic principle separately. Considerable variation in acquisition of awareness was found among the various learners.

Richgels, Donald J.; McGee Lea M.; Hernandez, Sue; & Williams, Nancy. (1988). Kindergartners' attention to graphic detail in functional print: Letter name knowledge and invented spelling ability. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 77-84). Chicago, IL: National Reading Conference.

Differentiates between 9 nonword readers, 44 novice word readers, and 6 expert word readers in their ability to attend to graphic detail in functional environmental print. Fifty-nine kindergarten children were randomly selected from two schools and tested individually for letter knowledge and word reading ability. Children also were given an invented spelling test and asked to respond to 10 functional print items (e.g. storybook, grocery list, coupon, calendar) which were coded using a taxonomy. One-way ANOVA by ranks was used to compare the three groups on letter naming, invented spelling, and performance on the functional print task. The analysis revealed that there are differences in the amounts and types of attention that the three groups gave to graphic detail in functional print. Nonreaders attempted to read functional print items but focused on individual letters and numbers; experts tried to read each item, pointing to the printed text as they read. Novices had a high number of grapheme-cued attempts to read but were hesitant and often gave letter and number responses. The discussion focuses on the nature of these differences in relation to letter knowledge and invented spelling ability.

YADEN, DAVID B., JR.; SMOLKIN, LAURA B.; & CONLON, ALICE. (1989, Spring). Preschoolers' questions about pictures, print conventions, and story text during reading aloud at home. *Reading Research Quarterly, 24,* 188-214.

Reports two studies analyzing the unprompted, spontaneous questions asked by preschoolers ages 3 to 5 engaged in over 145 hours of story reading with their parents. In Study 1, two male children were audiotaped over a two-year period. They asked 810 questions during 75 hours of recording. In Study 2, four boys and three girls attending a university preschool were recorded weekly for one year. Collectively during 72 hours of videotape, these seven children asked 1,915 questions. In both studies, children asked wide-ranging questions, with most children asking questions in every category of a previously established taxonomy. A general pattern for five of the nine children indicated they asked more questions about pictures than about story meaning or word meaning. Questions about graphic form such as letters or punctuation occurred less frequently. Developmental changes suggested an increase over time in questions about story and word meaning, and a slight decline in frequency of questions about pictures.

SMOLKIN, LAURA B.; CONLON, ALICE; & YADEN, DAVID B. (1988). Print salient illustrations in children's picture books: The emergence of written language awareness. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 59-68). Chicago, IL: National Reading Conference.

Categorizes the questioning behavior of seven preschoolers during storybook reading with their parents. The parents of the children taped their book reading sessions for one year. All tapes were transcribed and the questions children asked were classified using seven categories representing print salient aspects of picture books. The frequencies were converted to percentages for each child and for the individual categories. An examination of the types of questions asked indicates that young children attend to virtually every part of a picture book. Questions directed toward the illustrations focused on labels, signs, and speech balloons. Children asked about the print in titles, about the copyright, and about the dedication. Questions regarding letters in isolation occurred only when listening to alphabet books, while those questions focusing on words appeared purposeful toward getting a character's name or a story line.

VUKELICH, CAROL, & EDWARDS, NANCY. (1988). The role of context and as written orthography in kindergarteners' word recognition. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 85-93). Chicago, IL: National Reading Conference.

Assesses the effects of (1) removing the context (picture) and (2) fixing inventive spellings on children's ability to read the texts they have produced. Five- and 6-year old children served as the 20 subjects for the study. All children were reported to have received supportive literacy environments at home and in their kindergarten classrooms. The pieces the children wrote during their weekly group writing sessions served as the reading test samples. Pupils were asked to read what they wrote, and it was recorded. The next day children were asked to read their piece again along with two variations: the original text without its

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corresponding illustration, and original text modified to represent correct spelling and word spacing. Data were collected over a four-month period and resulted in 13 writing samples per subject. Performance on the three text versions indicated that the presence of the drawing made a great difference in the children's ability to read the words they had written. Replacement of the subjects' invented spelling with corrected forms did not effect pupils' ability to read their work.

BRYANT, P.E.; MACLEAN, M.; BRADLEY, L.L.; & CROSSLAND, J. (1990, May). Rhyme and alliteration, phoneme detection, and learning to read. *Developmental Psychology, 26,* 429-438.

Examines, over a two-year period, the relation between phonoligical awareness (as explained by three models of its development) and success in reading. The models tested were: (1) that formal instruction in reading and spelling, by itself, leads to the ability to detect phonemes; (2) that rhyming ability leads to phonemic detection ability which, in turn, leads to reading and spelling; and (3) that abilities in rhyming and phonemic detection make separate contributions to reading and spelling. Participants were 64 children from varying SES backgrounds who, at the beginning of the study, were 4 years 7 months old. Over the span of the study, participants attained a mean ratio score of 104 on the British Picture Vocabulary Test, a mean IQ of 110.94 on the WPPSI, and a mean IQ of 111.84 on the WISC-R. Predictive measures administered included tests of rhyme and alliteration detection (given at ages 4-7 and 5-7) and tests of phoneme detection (given at ages 5-7 and 6-11). Outcome measures included various reading, spelling, and arithmetic tests (given at ages 6-7). Results of a series of multiple regression analyses as well as path coefficient analyses indicated considerable support for combining Models 2 and 3 but no support for Model 1.

KAMBERELIS, GEORGE, & SULZBY, ELIZABETH. (1988). Transitional knowledge in emergent literacy. In John E. Readance & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 95-106). Chicago, IL: National Reading Conference.

Hypothesizes that the sophistication of narrative compositions could compete with the rereadings of these compositions during the literacy development of children in kindergarten and first grade. Each of the 46 subjects wrote and reread 14 stories collected during a two-year period. After writing, the pupil was asked to reread the story pointing to the words as they were read. All writing and rereading samples were coded using a checklist designed by the author. A comparison of the completed coded samples revealed two types of reading/writing relations. The first was characterized as low level writing/high level reading, where the writing was confined to random or patterned letter strings and the rereading utilized structural features of language such as discourse referencing, intonation, or letter naming. The second relation, high level writing/low level reading was illustrated through inventive spellings paired with rereadings using a written monologue style or speaking intonation and vocabulary that ignored text cues. These writing and reading relations are suggested as indices of transitional emergent literacy knowledge. Implications for instruction are outlined.

SCOTT, JUDITH ANN, & EHRI, LINNEA C. (1990, June). Sight word reading in prereaders: Use of logographic vs. alphabetic access routes. *Journal of Reading Behavior, 22,* 149-166.

Examines whether prereaders with letter knowledge rely on visual or phonetic cues to develop sight word reading ability. Subjects were 51 preschoolers and kindergartners who could not read any words in isolation but who could associate at least 11 letters with their names. Subjects were assigned to three conditions in which they were taught six simplified phonetic spellings or six nonphonetic but visually distinctive spellings. In the two conditions in which phonetic spellings were taught, children practiced by either naming letters within each word (enabling focus on phonetic cues) or counting letters within each word (enabling control for time). Letter counting also was required in the nonphonetic condition. On completion of instruction, children were administered: a posttest of six spellings taught in the word learning task, and a posttest of six new simplified phonetic spellings taught to assess transfer learning. Phonetic spellings were learned at a faster rate than visual spellings. There were no significant differences between phonetic name and phonetic count conditions.

CORNELL, EDWARD H.; SÉNÉCHAL, MONIQUE; & BRODA, LORRI S. (1988, December). Recall of picture books by 3-year-old children: Testing and repetition effects in joint reading activities. *Journal of Educational Psychology, 80*, 537-542.

Assessed recall of picture book content by 3-year-olds when testing or rereading directives were given during joint reading activities provided in the home. Subjects for the study were drawn from a pool of 120 children from middle- to upper-class families. Two unfamiliar books were read to each of the 72 subjects who participated in the study while exposed to one of two treatments: the reader pointed to book items that would need to be recalled, or the child was asked to point to them. One of three activities of equal time duration followed the initial reading of each book: a recall test activity in which children were asked questions about the text as it was again read to them, a second reading which did not involve questioning, or a control puzzle completion activity. A final recall test followed that measured number of book memories made as each child was asked to anticipate events from page to page. All procedures and the final recall test were taped as they were administered. Recall test data were subjected to multivariate and univariate ANOVA procedures. No significant differences were observed between the two pointing treatments. However, both recall testing and rereading activities applied after the initial reading facilitated final recall.

FOORMAN, BARBARA R.; & LIBERMAN, DOV. (1989). Visual and phonological processing of words: A comparison of good and poor readers. *Journal of Learning Disabilities, 22*(6), 349-355.

Contrasts good and poor readers' use of visual and phonological codes during early stages of reading development. Subjects were 80 first graders in their third month of classes. Half the subjects attended a public school where they were being taught to read through a whole word approach; the others attended two parochial schools where they were being taught through a phonic approach. Children were asked to spell, read orally, and recognize (with or without clues) 60 single syllable English words (40 having regular spelling patterns and 20 having exceptional patterns). GMRT grade equivalent scores above and below 1.3 were used to identify good readers and poor readers. The Test of Auditory Analysis Skills provided a measure or each subject's phonetic segmentation ability. Oral Reading and Spelling measures were submitted to 2 types of readers (good, bad) × 2 kinds of reading instruction (whole word, phonetic) ANOVA with repeated measures. The ANOVA on the recognition test further included a between subjects factor of clue versus no clue. Dependent variables for these analyses were the proportions of correct responses for the spelling and oral reading tests, the difference between mean proportions of nonphonetic and phonetic errors on the spelling and oral reading tests, and the proportion of errors relating to the clue or relating to the target word on the recognition test. Good readers excelled over poor readers in phonological recoding, auditory analysis, and in ability to apply grapheme-phoneme correspondence rules. However, they were weaker than poor readers in using visual-orthographic knowledge. Results are discussed in terms of a temporal continuum of early reading development.

ROWE, DEBORAH WELLS. (1989). Preschoolers' use of metacognitive knowledge and strategies in self-selected literacy events. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp.

65-76). Chicago, IL: National Reading Conference.

Observes 21 preschoolers during self-selected classroom reading and writing activities to determine the use of metacognitive knowledge and strategies. Children, 3 and 4 years old, were observed three to four days per week for eight months in a day care setting. Field notes, samples of children's work, audiotapes, and videorecordings served as the data for examination. Eleven types of behaviors were noted during writing, illustrating three types of metacognitive knowledge: personal, strategy, and task. Observations supported the conclusion that preschoolers are able to consciously monitor the success of their communicative efforts, self-correct, and use a variety of strategies to solve problems that occur during literacy events.

SHINN-STRIEKER, TONI; HOUSE, GARY; & KLINK, BARBARA. (1989, September/October). The roles of cognitive processing and language development in emergent literacy. *Remedial and Special Education, 10,* 43-50.

Investigates simultaneous and successive processing abilities and language development as predictors of early reading achievement. Subjects were 64 preschoolers between the ages of 4 and 6 who, according to their teachers, were functioning within the normal range of development. For each subject, measures of simultaneous processing, sequential processing, and composite mental processing ability were obtained through individualized administration of the Kaufman Assessment Battery for Children. Also administerd individually were the Test of Early Language Development and the Test of Early Reading Ability. Coefficients of correlation were computed for various variable pairs and multivariate relations between possible predictors and criterion variables were tested. Results demonstrated that language development and simultaneous processing ability together accounted for a significant proportion of early reading variance. Successive processing ability did not make a significant contribution to emergent literacy. Findings were taken to support holistic methodologies for early reading instruction rather than methodologies that encourage fragmented skill development.

PONTECORVO, CLOTILDE, & ZUCCHERMAGLIO, CRISTINA. (1990). A passage to literacy: Learning in a social context. In Yetta M. Goodman (Ed.), *How children construct literacy: Piagetian perspectives* (pp. 59-98). Newark, DE: International Reading Association.

Describes objectives, teaching strategies, and pupil behaviors observed during implementation of a curriculum that stressed writing construction, interpretation, and text composition in preliterate children. Subjects were 5-year-olds from several schools throughout Italy. Features of the curriculum encouraged social interaction and cooperative learning. Children exposed to this curriculum appeared to be motivated and to have positive attitudes toward language learning.

NEUMAN, SUSAN B., & ROSKOS, KATHY. (1989). Preschoolers' conceptions of literacy as reflected in their spontaneous play. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 87-93). Chicago, IL: National Reading Conference.

Asks what common functions and features of literacy are observed during spontaneous play in a preschool setting and how frequently they occur across different groups of preschoolers. Fifty children from two preschools serving different SES populations formed the sample. The actions and language of each child were recorded for 10 minutes during free time four times over a two-month period. The resulting 200 play protocols were examined for behaviors associated with reading and writing which were segmented by either shifts in the focus of the play or shifts in the interactions among players. Each event was analyzed for processes which indicated an understanding of the literacy activity (functions) and for featural knowledge. A total of 103 literacy behaviors were noted. Exploratory, interactional, and transactional functions were most commonly found. Children appeared to understand that print carries a message and knew some features of print (letter names). No significant differences were found for gender or SES in the recorded number of literacy events observed.

GALDA, LEE; PELLEGRINI, A.D.; & COX, SUSAN. (1989, October). A short term longitudinal study of preschoolers' emergent literacy. *Research in the Teaching of English, 23*, 292-309.

Investigates the predictive relation of symbolic play, use of metalinguistic verbs, and emergent literacy. Sixty children in two age groups (ages 3-1/2 and 4-1/2 years) from a university preschool were observed during free play periods for one year. Over fall and winter terms, nine 15-minute long audiotapes of children's utterances and related running behavioral recordings were made from which were derived scores pertinent to children's symbolic play and various forms of metalinguistic verb usage. Midway through the study the PPVT was administered to obtain a measure of each child's receptive vocabulary. In the spring, the language and gestures children used as they performed reading and writing tasks were noted. Emergent literacy as a criterion variable was assessed at the year's end using adaptations of the Emergent Writer Scale, the Emergent Reader Scale, and the Concept of Print Test. Separate stepwise regression analyses using the PPVT as a control for receptive vocabulary were conducted for each age group. For older children, symbolic play was a positive predictor, and encoding of idiomatic metalinguistic verbs a negative predictor of writing status. Use of process verbs was a positive predictor of reading status. Only the PPVT positively predicted younger children's writing. When the PPVT was controlled, reading and writing scores were independent for both older and younger children.

SCHRADER, CAROL TAYLOR. (1990, March). Symbolic play as a curricular tool for early literacy development. *Early Childhood Research Quarterly, 5*, 79-103.

Explores four teachers' use of symbolic play as a teaching-learning medium for early literacy development of 3-, 4-, and 5-year olds. Two teachers worked in a university laboratory preschool and two in two different private community preschools. Data were collected through videotapings and audiotapings of symbolic play, as well as from teachers' recorded observations and children's written language productions. Teachers' behaviors were classified as extending or redirecting, with extending behaviors identified as those taken from cues of the child and redirecting behaviors identified as those which ignore what the child is paying attention to and trying to accomplish. All four teachers used more extending than redirecting interactions, but each teacher demonstrated both extending and redirecting styles. The researchers conclude that teachers can use symbolic play as a teaching-learning medium for early literacy development and that teachers can facilitate early literacy development by functioning as participants in the symbolic play.

ROWE, DEBORAH WELLS. (1989, September). Author/audience interaction in the preschool: The role of social interaction in literacy learning. *Journal of Reading Behavior, 21*, 311-349.

Examines social interaction patterns during children's self-selected literacy activities in a preschool. Subjects were 21 3- and 4-year-olds in a day care program serving faculty, graduate students, and staff at a large midwestern university. Children were from one classroom in which the curriculum supported functional, audience directed literacy. Various techniques for data gathering were implemented over an eight-month period, including ethnographic techniques of participant observation, field notes, collection of written texts, and audio and videotapes. Three interaction patterns for teachers and children were identified, transcribed, and submitted to microlinguistic analysis of language styles used in author/

audience dyads. Observed author/audience conversations generally promoted the following learning outcomes: activation, confirmation, or revision of existing literacy knowledge; authors becoming audiences for their own writing; internalization of author/audience perspective; experiencing of literacy activities beyond authors' independent abilities; and building of shared understandings about literacy.

SPENCER, BETH R., & AFFLERBACH, PETER P. (1988). Young children's explanations of spaces between words in written text. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 69-76). Chicago, IL: National Reading Conference.

Describes the sequence by which children become aware of and are able to discuss the function of spaces between words in written language. Subjects were 32 children ranging in age from 5 to 8 years randomly selected from an urban community. Four concept-of-word tasks were administered at six month intervals three times during the study: word boundaries circling task, word boundaries explanation task, sentence dictation spacing task, and sentence dictation explanation task. Means for the prewritten text condition (word circling task) were significantly higher than for the self-produced text condition (dictation spacing task) on two of three test trials. No differences were found for either the word boundaries explanation task or the dictation explanation task. Results suggest that children can segment words more easily in prewritten text than in texts they produce themselves. Differences are discussed in terms of task demand performances.

BOLJONIS, ALICE, & HINCHMAN, KATHLEEN. (1988). First graders' perceptions of reading and writing. In John E. Readance & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 107-114). Chicago, IL: National Reading Conference.

Compares three classroom approaches to reading instruction (whole language, supplemental basal program, and basal program) on the perceptions of 55 first graders regarding instructional practices, processes, and purposes for literacy activities. A constant comparative method from the qualitative research paradigm was employed during the spring of one school year. Data collected included fieldnotes from 100 hours of classroom observations, transcripts representing hours of interviews with pupils and the examination of materials used in the three classrooms. Subjects in all three classrooms were able to articulate functional adult type uses for print. Children's perceptions of reading reflected the activities associated with the various approaches. While positive feelings about literacy experiences were found in all the classrooms, they were strongly evidenced in the classroom using the whole language approach. The study concluded that young children come to define reading and writing by what they experience during their reading instruction.

SPENCER, BETH R. (1990, Winter). The development of the young child's concept of word: A longitudinal study. *Reading Research Quarterly*, *25*, 66-67.

Investigates the evolution of the concept of word in young children, and the effects of reading instruction and cognitive development on the emergence of that concept. Subjects were 32 preschool, kindergarten, first-grade, and second-grade children who completed three sets of interview data at six-month intervals for one year's time. Children were classified as preoperational, transitional, or concrete operational on Piagetian sorting and seriation tasks. Tacit knowledge of words in spoken language was assessed by a lexical decision task. Tacit knowledge of words in written language was assessed by dictating sentences and assessing whether children used spatial boundaries to break the discourse into "words." Explicit knowledge was assessed by classifying children's explanations for their answers to the two tacit knowledge tasks. Children's performance increased over the trials. There was no significant difference in performance between the tacit word tasks. A significant difference was found between the tacit written task and the explicit written task for all trials. Significant differences also were found between the two explicit word concept tasks. It was concluded that tacit knowledge of the concept of word seems to develop concurrently, rather than sequentially. Tacit knowledge develops only after the child develops explicit knowledge of the written word. Concept of word appears to be related to the amount of reading instruction received and the level of cognitive development.

PIKULSKI, JOHN J., & TOBIN, AILEEN WEBB. (1989). Factors associated with long term reading achievement of early readers. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 123-133). Chicago, IL: National Reading Conference.

Reports on the final phase of a study of children who learned to read before formal schooling and examines why they have been able to maintain their superior reading achievement up to the sixth grade. The original sample consisted of a matched sample of 30 early readers and 30 nonearly readers entering kindergarten. Due to attrition, this sample was reduced to 23 early and 25 nonearly readers at the end of the sixth grade testing period. All available children were retested using the GMRT four times during their elementary career; a parent questionnaire was administered also at each of these testing points. At the end of sixth grade, pupils also were given the PPVT, an informal measure of knowledge of children's literature, and an informal attitude survey. Results suggested that early readers maintained their advantage because they had the benefit of an early start and early interest in independent reading. Greater amounts of independent reading may play a crucial role in promoting reading achievement.

GROSSI, ESTHER PILLAR. (1990). Applying psychogenesis principles to the literacy instruction of lower-class children in Brazil. In Yetta M. Goodman (Ed.), *How children construct literacy: Piagetian perspectives* (pp. 99-114). Newark, DE: International Reading Association.

Uses data from GEEMPA (a study group in education–methodology, research, and action) to support the notion that young Brazilian children develop differently than suggested in earlier studies. According to GEEMPA data, two types of mental organization are present at the presyllabic level. In the first, the child understands only the reading of drawings or drawings with letters next to them. Both figurative aspects and graphic expression are essential to the child's writing. At the second stage, the child realizes that a graphic sign can represent an abstract concept. Intermediary steps are present between presyllabic one and presyllabic two, betweeen presyllabic two and syllabic levels, and between syllabic and alphabetic levels. At these intermediary stages, subjects are aware that they are unable to solve a problem they previously could solve. Subjects move from one level to another because of an awareness that other people need to understand what the child has written. Data from one group of children in one GEEMPA project are included to show the progression of children's developing literacy.

IV-21 Studies on the reading process

RAYNER, KEITH, & DUFFY, SUSAN A. (1988). On-line comprehension processes and eye movements during reading. In Meredyth Daneman, G.E. MacKinnon, & T. Gary Waller (Eds.), *Reading research: Advances in theory and practice* (pp. 13-66). New York: Academic.

Reviews evidence related to the use of eye-movement data as a reflection of on-line comprehension processes during reading. Examined are studies dealing with word recognition and lexical access in reading, the effect of context on word recognition, antecedent search processes, and syntactic parsing during reading. The article begins with a discussion of issues related to the nature of the perceptual span and the eye-mind span and then reviews the research in the four areas. The authors conclude that the research reviewed leads to the conclusion that eye-movement data can be used to study moment-to-moment processing of text. It is felt the research indicates that the processing load is reflected in the pattern of eye movements and especially in the duration of the fixations. Eye-movement research has an advantage in that data can be collected on-line as the reader reads the text. Also pointed out is that eye-movement data, similar to other data, do not always yield consistent results from one research report to another. It is felt that some of these inconsistent findings may be due to the characteristics of a particular study and the methods used, but also noted is that the effects of some discourse-level processes are not confined to single fixations but occur over a number of fixations.

O'BRIEN, EDWARD J.; SHANK, DOLORES M.; MYERS, JEROME L.; & RAYNER, KEITH. (1988, July). Elaborative inferences during reading: Do they occur on-line? *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14*, 410-420.

Conducts four experiments to determine the extent to which readers construct elaborative inferences on-line during reading. Subjects were university students and numbered 32, 20, 28, and 40, respectively, in the four experiments. In the first experiment, gaze durations were measured as subjects read anaphors to target antecedents that referenced a particular category member either explicitly or implicitly. Thirty-two pairs of experimental passages were constructed, each containing an antecedent in the second sentence and an anaphor in the final sentence. Antecedents referenced a particular category member either explicitly or implicitly; anaphors referenced the category member explicitly in all passages. Contexts surrounding an antecedent in one passage of each pair strongly suggested one particular member of a category; for the other passage, the surrounding context did not suggest any particular category member. The amount of context around antecedents was the same for both high- and low-context passages. Results indicated that when the context strongly suggests a particular category member, gaze durations on anaphors were the same following either an implicit or an explicit antecedent. When the context did not suggest any particular category member, gaze durations were significantly longer following an implicit antecedent. Indications were that readers generate a simple elaborative inference on-line when given sufficient context. Results in Experiment 2 replicated those of the first experiment with materials that did not strongly signal the inference; rather, a sentence designed to encourage subjects to infer was included. In Experiment 3, the demand sentence was deleted from each passage, and subjects did not appear to complete the elaborative inference. Findings of the final experiment confirmed that, once generated, elaborative inferences are stored as part of the long-term-memory representation of a passage.

OSAKA, NAOYUKI. (1989, November). Eye fixation and saccade during kana and kanji text reading: Comparison of English and Japanese text processing. *Bulletin of the Psychonomic Society, 27*, 548-550.

Presents data from two experiments determining whether there are differences in eye movement behavior during kana and kanji text reading and compares text processing in Japanese and English. In Experiment, 1, eye movements of six college students were analyzed during katakana-, hirakana-, and kanji-based text reading. After silent reading, subjects answered several comprehension questions. Fixation duration, saccade magnitude, saccade velocity, and regressive eye movements were recorded. Results revealed that katakana reading required longer fixation durations with small saccade magnitude, while kanji-based reading required shorter fixation durations with larger saccade magnitude. Eye movement characteristics of hirakana-based text fell in between. Frequency of regressive eye movements was larger for katakana text. In Experiment 2, English text was introduced to four Japanese college students. They were asked to read easy and difficult versions of both English and Japanese text. Both Japanese texts were written in a kanji-based mode. ANOVAS for fixation duration, saccade length, velocity, and regressive movements indicated no significant main effects differences except for the main effect on language difference for fixation duration. English text required longer durations for both easy and difficult texts, but there was no significant difference between difficulty levels.

Larsen, Steen, & Seilman, Uffe. (1988). Personal remindings while reading literature. *Text, 8*(4), 411-429.

Posits that conventional thinking aloud methods for studying reaction to text are inappropriate and develops a method called self-probed retrospection, a hybrid of concurrent thinking aloud and retrospective probing. The method involves self-cued recall of concurrent thoughts after the reader has completed reading. Two experiments are cited using the approach, both using psychology students as subjects (n = 20 and 7, respectively). In the first experiment, one literary and one expository text, each about 3,000 words long, were selected. Subjects were assigned to read one of the texts at random with the directive to mark any spot in the text that elicited some reminder of something they had experienced. After the reading was completed, each subject responded to an eight-item multiple-choice or rating scale response questionnaire concerned with various aspects of the reminded experience. The number of incidences of remindings was almost identical for two texts. However, the literary text generated almost twice the number of remindings of experiences in which the reader had taken an active part as did the expository text. The latter generated more remindings of reading or hearing about things. When the text was broken into thirds and remindings analyzed by segments, it was found that frequency of remindings decreased over segments in both texts from the first to the last part. Experiment 2 followed similar procedures except that different texts were used and subjects also were to give a keyword of the reminder as they marked the spot in the text. It was concluded that the methodology did not interfere with the normal reading process.

Levstik, Linka S. (1989, Spring). Historical narrative and the young reader. *Theory into Practice, 28*, 114-119.

Discusses data collected from a year-long case study of one fifth-grade girl as she developed a historical understanding and interaction with historical narrative. In particular, the emphasis is upon the manner in which historical fiction influenced the girl's understanding of history. Interviews were conducted with the child after the reading of every book, and excerpts from those interviews are presented along with the researcher's interpretation. Five ways in which narrative influenced the way the subject responded to and made sense of history are presented: (1) associated history with a good story and endowed it with a sense of wholeness and resolution, (2) moralized history, (3) transmitted a sense of truth that overpowered concern for historical accuracy, (4) emphasized the humanness of historical events that connected the child with history, and (5) called forth a subjective response that was used as a frame of reference in evaluating the textbook.

Sparks, Elizabeth E. (1988). Carl: A case study of executive control in a gifted adolescent reader. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 209-217). Chicago, IL: National Reading Conference.

Attempts to describe the processing involved in skilled reading as it relates to various contextual factors. The case study focused on one gifted seventh grader who was reported to be ranked high among a pool of 70 gifted adolescents. During individual sessions the subject was asked to read a 250-word passage. Behaviors noted from the two passages, 18 comprehension questions, and four self-reporting measures (thinking aloud, interpretation of his own account of the think aloud, introspection, and interpretation of that introspection) were coded into eight categories representing metacomponents of thinking. Analysis of protocols indicated that when answering the comprehension questions, the subject made 95 executive decisions that tapped all eight categories. The complexity of the process appeared to be influenced by the task demands and the difficulty of the questions.

Rost, Detlef H. (1989, September). Reading comprehension: Skill or skills? *Journal of Research in Reading, 12*, 87-113.

Investigates whether reading comprehension is a holistic skill or different separate subskills by administering 38 separate German reading tests, one spelling test, and one speed-of-information-processing test to 220 German second graders (114 girls and 106 boys). Principal component analysis using principal axis extraction procedures led to one general reading comprehension component that accounted for 61% of the total variance, with similar results for girls and boys. For this study, young children's reading comprehension appears to be holistic, rather than composed of discrete skills.

Cairney, Trevor. (1990, March). Intertextuality: Infectious echoes from the past. *The Reading Teacher, 43*, 478-484.

Reports partial data from a two-year study investigating how the reading and writing of children ages 6-12 years is affected by previous textual experiences. Specifically, this portion of the larger study focused on individual interviews with grade 6 children who were asked if they think of stories they have read when they are writing their own stories. The interviews also investigated whether links between reading and writing varied for high and low ability readers. Forty low and 40 high ability grade 6 Australian children were interviewed. Ninety percent of the pupils were aware of intertextual links. Links made between texts fell into seven categories: use of genre; use of character as a model; use of specific ideas without copying plot; copying the plot but using different events, characters, and settings; copying the plot and ideas of the story; transferring content from expository to narrative texts; and creating a narrative from several other narratives. The majority of links were at the level of ideas and plot. Few differences were found between low and high ability readers, although low ability readers were more likely to transfer content from expository to narrative texts and to model a character from one they had read about.

Haggard, Martha Rapp. (1989). Reducing ambiguity: A study of how students and teachers make sense of school. In Sandra McCormick & Jerry Zutell (Eds.), *Cognitive and social perspectives for literacy research and instruction* (pp. 445-451).

Asks what children do when faced with ambiguous tasks and what means teachers employ to monitor pupil response to ambiguity. One intact fifth-grade classroom in a small urban school was observed daily for 15 weeks. Following the observation period, structured interviews were conducted with 11 children and the teacher. Two literacy tasks were noted: the daily reading assignment (unintended ambiguity), where as a group pupils read a novel and completed a corresponding study guide; and the weekly spelling assignment (intended ambiguity), where pupils wrote stories using all the spelling words for that week. Children were able to describe their approach to each task which included an identified task goal and a plan. Three levels of responses for each task are described. Findings supported the conclusion that children deal with intended ambiguous assignments by reducing them to manageable components described as low-level rote assignments. Children reacted to unintended ambiguous tasks by trying to bring meaning and sense to what would appear to be unrealistic. Teacher monitoring of and response to pupil behaviors toward ambiguous assignments were reinforcing and often directive in nature.

Høien, Torleiv, & Lundberg, Ingvar. (1988, December). Stages of word recognition in early reading development. *Scandinavian Journal of Educational Research, 32*, 163-182.

Examines the validity of a model of early reading development consisting of four ordered stages: pseudoreading, logographic-visual, alphabetic-phonemic, and orthographic-morphemic. Subjects were 50 children from 10 Scandinavian countries who were selected to be followed from preschool to grade 3. A number of assessments of reading performance, cognitive ability, print awareness, metalinguistic skills, as well as home environment were individually administered. Classroom and home observations additionally produced records of teaching strategies, classroom interactions, rate of progression, use of teaching materials, and learning environment for each child. At various times over the three-year period, the data available on each child were summarized and expressed as a level on the scale of decoding development. The report discusses 4 of the 50 cases, each illustrating similar progression through the stage model. Each of the four children acquired basic decoding rules in similar fashion and with similar speed. Differences in school environments did not seem to influence the stage course of development.

Long, Shirley A.; Winograd, Peter N.; & Bridge, Connie A. (1989, Summer). The effects of reader and text characteristics on imagery reported during and after reading. *Reading Research Quarterly, 24*, 353-372.

Examines the influence of reader and text characteristics on imagery reported during and after reading. Subjects were 25 fifth graders who scored at or above the 25th percentile in reading comprehension on the CTBS. Reader characteristics noted for each subject were reading achievement, prior knowledge, vividness of mental imagery, and interest in the topic being read. A poem, a narrative, and two expository text selections were chosen from a fifth grade basal, with each containing 10 features likely to evoke imagery: (1) direct and (2) indirect emotional descriptors; (3) direct and (4) indirect sensory descriptors; (5) personification; (6) onomatopoeia; (7) simile; (8) metaphor; (9) literal analogy; and (10) climactic point. Pupils were asked to read each selection aloud and at specified points to introspect about current thoughts and reading strategies being used as they read. After reading each selection, the subjects responded orally to imagery and interest postreading questions, and silently to a set of multiple-choice comprehension questions pertaining to the selection. Correlational and ANOVA procedures revealed that, regardless of text selection, imagery occurred both during and after reading. Imagery production was noticeably influenced by both reader and text characteristics. Vividness of mental imagery was significantly correlated to imagery reports made during and after reading each selection as well as reported interest in the selection. Imagery during reading was found to differ significantly from imagery recalled after reading when viewed in relation to genre and text features considered in the study.

Henrichs, Margaret L. (1989, Spring/Summer). Characteristics of highly proficient college freshman readers. *Forum for Reading, 20*, 6-14.

Examines the characteristics of highly proficient readers to determine what strategies they use while reading, and how they obtain and store information for future use. The four paid volunteer freshmen who participated in the study had scored above 600 on the verbal component of the SAT or 27 on the ACT and later performed at upper levels on the English Invitational Examination. During Phase 1 of the data collection period, oral readings from sociology texts were analyzed using two miscue inventories. During Phase 2, several other

RMIs were used to analyze reading from philosophy texts. Heuristic data on subjects' comprehension and comprehension monitoring were acquired through informal discussions and tape stops. Interview responses provided rationale for students' personal models of reading, including their positive self-perceptions as readers, family supported early reading experiences, preschool reading ability, diverse interests, and uses of language. The students generally accepted textual understanding as a reader's responsibility and monitored their reading beyond the word level. All seemed to possess various schemata for comprehending new material. Analysis of summary responses suggested proficient readers have the ability to note main ideas and supporting details but may need training in written summarization. All four readers obtained high scores in uses of graphophonic, syntactic, and semantic language systems, although their tendency to overcorrect raised questions on oral reading efficiency. For all four, patterns of miscues revealed behaviors that confirm text sampling, meaning prediction, and confirmation. Comprehension strategies used in approaching various texts were specific though idiosyncratic among the four students and not easily categorized.

REID, D.J., & BEVERIDGE, M. (1990, February). Reading illustrated science texts: A microcomputer based investigation of children's strategies. *British Journal of Educational Psychology, 60*, 76-87.

Investigates the picture-text processing strategies used by 180 14-year-old children working in groups of 10 in the school computer laboratory and relates identified strategies to their success on three criterion-referenced tests. Three illustrated science topics of different levels of difficulty were presented on a microcomputer. The computer recorded the time spent processing each sentence and each picture, as well as the point in the text when each picture was accessed and how frequently. Data suggested that the children's performance fell into six groups according to their success rates on the learning tasks. As the topics increased in difficulty, longer times were spent looking at texts and at pictures. Time spent on looking at pictures related significantly to the success a child was experiencing, with time decreasing as success increased. For every second the least successful children spent accessing pictures, they spent four seconds reading the text. More successful subjects had a ratio of 1-6. Least successful children accessed pictures significantly more frequently than did the most successful subjects. Detailed analyses of one of the three topics is included.

HYNDS, SUSAN. (1989, February). Bringing life to literature and literature to life: Social constructs and context of four adolescent readers. *Research in the Teaching of English, 23*, 30-61.

Examines social influences on the reading processes of four adolescent readers, as well as the relation between factors of social-cognition and the students' responses to short stories. The four participants were all high school seniors. Perceptions of reading and literature were assessed by means of a Likert scale Reading Interests and Background Questionnaire. Semistructured interviews were conducted with students and their teachers in which more specific information about response patterns, reading attitudes, and experiences was collected. Subjects also were asked (1) to describe in writing a liked and a disliked peer to give an estimate of interpersonal construct differentation, and (2) to complete a written free response on a short story character as a measure of character complexity. Subjects were asked to respond to four short stories by articulating their perceptions in a think-aloud manner as they read. Explanations for responses then were obtained by retrospective means. Transcripts of think-aloud protocols were segmented into thought units and analyzed. A case study analysis is presented for each reader. It was felt that the findings pointed out the need for more varied and systematic assessments of reading competence, as well as an understanding of the interplay of competence, pragmatics, and volition in the likelihood that readers will bring social-cognitive processes to bear on reading.

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Søderberg, Anne-Marie. (1988, December). Reading texts: Speech in an echo chamber. A study of text analysis in the high school. *Scandinavian Journal of Educational Research*, *32*, 183-199.

Reports data from a seven-month study in 14 classes of one Danish gymnasium, a three-year secondary school for 16-19 year olds. Lessons were taped, students and teachers were interviewed, surveys of reading habits were conducted, and text analysis essays were collected and analyzed for over 350 students. Focus of the investigation was what happens when students receive an assignment where they have to analyze and interpret text. Among the questions addressed by the researcher were: What elements in the text do the students focus on, what interrelations do they establish in the text, what do teachers demand from written text analyses, what strategies do the students develop to satisfy their teachers' interpretations of the texts, which reading modes are acceptable within the gymnasium and which are excluded from the school sphere, and what function does essay writing have? Observational data and interview conversations are reported, as are excerpts from selected essays. The researcher suggests that school imposes specific requirements of linguistic and cultural competence on learners that produce learner echoic speech, rather than capable, assertive, and creative learners.

Deffner, Gerhard. (1988). Concurrent thinking aloud: An on-line tool for studying representations used in text understanding. *Text*, *8*(4), 351-367.

Seeks answers to two questions: To what extent does concurrent thinking aloud interfere with processes of understanding (reactivity), and to what extent can the method of concurrent verbalization and the analysis of the corresponding protocols reveal processes of understanding (relevance of content)? Concurrent think-aloud protocols were collected from 22 introductory psychology class students who solved experimental tasks. Accuracy, solution time, and eye-movements were recorded. Data were used to identify subjects' use of series formation or elimination in a given trial. Strategies were identified by comparing individual gaze sequences to norms developed during an earlier study. Overall solution tasks did not differ over time. No differences were found for accuracy or strategy choice. On the first four tasks, elimination was the preferred strategy of the control group. Protocol statements were categorized into reading, transformation, and series formation. Solution time was closely related to the relative frequency of the protocol statements, with rapid solution time for reading, and transformation and series formation statements associated with higher frequencies of statements categorized as reading, and lower frequency of the other two types. All 170 protocols were analyzed for strategy and representation used. Results indicate that concurrent protocols reveal information about strategy use. Three protocols are included to demonstrate strategy use and shift.

Ferguson-Hessler, Monica G.M., & de Jong, Ton. (1990). Studying physics texts: Differences in study processes between good and poor performers. *Cognition and Instruction*, *7*(1), 41-54.

Contrasts good and poor performers' use of study processes relative to the quality of their resulting knowledge base. Subjects were the top 5 good performers and the bottom 5 poor performers on a series of curriculum examinations administered to 21 first-year physics students prior to, during, and after the collection of observational data for this study. The 21 students observed were asked to study a 10-page text on electricity and magnetism and to report aloud on their study processes at specified intervals as they progressed through the text. Other data, including student interviews after studying, notes taken while studying, and think-alouds while doing exercises related to the material being studied, were collected for validation purposes. Students' statements while studying were classified into 1 of 32 categories describing different study processes. Each statement was further noted as focussing on declarative, procedural, or situational knowledge. The categories were placed into four main classifications: superficial processing, integrating, connecting, and other activities. Findings indicated that good and poor performers used about the same number of study processes. However, the nature of the study processes used by the two groups differed. Poor performers applied significantly more superficial processing techniques and fewer deep processing techniques than good performers. While studying, good performers tended to focus on declarative knowledge while good performers tended to focus on situational and procedural knowledge. Data collected for validation purposes confirmed students' reports on their study processes.

Hall, Rogers; Kibler, Dennis; Wenger, Etienne; & Truxaw, Chris. (1989). Exploring the episodic structure of algebra story problem solving. *Cognition and Instruction*, *6*(3), 223-283.

Analyzes the quantitative and situational structure of algebra story problems, uses the analysis to propose an interpretive framework for written problem-solving protocols, and presents an exploratory study of the episodic structure of algebra story problem solving with 85 upper-division mathematically competent undergraduates. Analyses of written protocols compare the strategic, tactical, and conceptual content of solution attempts, looking at the interplay between problem comprehension and problem solution. Algebraic equations appeared to be of little help in comprehending the quantitative constraints in the problem text. Subjects used various forms of model-based reasoning to identify, pursue, and verify the quantitative information required for solution. Implications for instruction are included.

Wade, Suzanne E.; Trathen, Woodrow; & Schraw, Gregory. (1990, Spring). An analysis of spontaneous study strategies. *Reading Research Quarterly*, *25*, 147-166.

Investigates the concept of study strategy and how strategy use is related to performance. For purposes of this study, the authors defined a strategy as a group of study tactics used in a purposeful way to accomplish a specific learning task. Subjects were 67 undergraduates who were asked to read silently a lengthy chapter from an expository text and periodically to report on study tactics being used to remember information. The subjects then were administered a recall test containing 16 high importance questions and 16 low importance questions. Frequency counts were made of each of 14 possible study tactics mentioned at each report. Tactics were grouped into three categories to distinguish qualitatively different types of tactics: text noting tactics, mental learning tactics, and reading tactics. From these data, scores were derived for three variables that described subjects' use of study tactics: diversity, consistency, and purposefulness. Cluster analysis and discrimination analyses identified six types of studiers: Good Strategy User, Information Organizer, Flexible Reader, Text Noter, Mental Integrator, and Memorizer. The authors define these types in terms of tactics used as well as diversity, purposefulness, and consistency of usage. ANOVA procedures revealed no significant differences among the six types of studiers in the amount or type of information recalled from the text.

IV-22 Comprehension research

Weisberg, Renee. (1988, Spring). 1980's: A change in focus of reading comprehension research: A review of reading/learning disabilities research based on an interactive model of reading. *Learning Disabilities Quarterly*, *11*, 149-159.

Reviews literature focusing on the influence of prior knowledge, text conditions, task demands and instruction in specific metacognitive strategies. Assumes an interactive framework to describe and discuss the effects that such interventions have on LD students. The interventions that were reported as successful involve activating prior knowledge and building background information. Advance organizers and the importance of a purpose for reading were listed as those methods most successful.

MACMARTIN, MORAG. (1989). Factors affecting reading comprehension in primary pupils. In Morag Hunter-Carsch (Ed.), *The art of reading* (pp. 131-138). Oxford, UK: Basil Blackwell.

Reports on data collected from 250 pupils, ages 8 to 11, on their recalls of children's literature texts. Recalls were half pictorial and half written. Ten categories of error types in comprehension of text were identifed. These fell into three child centered errors, three text centered errors, two effort after meaning errors, and two surface reading errors. The category system with a brief example of each is given.

REUTZEL, D. RAY, & HOLLINGSWORTH, PAUL M. (1990, Spring). Skill hierarchies in reading comprehension. *Reading Improvement, 27,* 64-71.

Attempts to refute the skill hierarchical perspective of reading comprehension by examining the effects of skill instruction on the comprehension of intermediate level pupils. Using the comprehension subtest of the CTBS, 119 children in grades 4 and 6 were blocked by reading ability and randomly assigned to one of five treatment skill groups: locating details, drawing conclusions, finding the main idea, finding sequence, and SSR using self-selected trade books (control). Ten teachers were randomly assigned to and received instruction in one skill treatment. Teachers were provided with detailed lessons consistent in instructional methodology despite the skill focused on. Nineteen lessons on the single skills were delivered consecutively during the regular 60-minute daily reading period. The Criterion-Related Comprehension Skill Test, a posttest measure developed by the authors, was administered on the last day of instruction. Statistical analysis indicated there were no significant differences among the five treatment groups on the four comprehension skills measures. Support for a holistic view of reading comprehension and for increasing the time spent in SSR as a means of improving reading comprehension is discussed.

SCEVAK, JILL J., & MOORE, PHILLIP J. (1990, April). Effective processing of visual information. *Reading, 24,* 28-36.

Investigates how 32 Australian secondary school students use geographical maps and whether these same students can be trained to more effectively process maps to facilitate comprehension of school textbooks. During three 40 minute periods, subjects were given an overview of text materials through the use of three accompanying maps. Students skimmed through the text and maps to see their integration and to locate specific event information. Strategic use of maps was modelled on the overhead projector. Students marked major events on the map schematically and verbally, and drew inferences and conclusions. One day later students were given back their maps and asked to reconstruct the events without reference to their textbooks. One week later, students wrote down all they could remember about the events studied. Three weeks later, students were given a new text and a map and told to use the map in any way that would help them understand the material. Using repeated measures ANOVA, significant differences were found. Free recalls showed superiority for the trained group in recalling information, especially for students of high ability. On the transfer test, trained high reading ability students were superior in recall of main ideas. The researchers concluded the training was successful and the strategies transferred.

ABRAHAMSEN, EILEEN P., & SHELTON, KATHLEEN C. (1989, November). Reading comprehension in adolescents with learning disabilities: Semantic and syntactic effects. *Journal of Learning Disabilities, 22*, 569-572.

Studies the effects of syntactic and semantic complexities on the comprehension of content area reading material. Subjects were 92 mainstreamed seventh, eighth, and ninth graders with average ability who were receiving LD resource services. Students were randomly assigned to one of four groups in which they read three paragraphs from their history text with: (1) no changes, (2) syntactic changes, (3) semantic changes, or (4) both syntactic and semantic changes. The syntactic change version consisted mainly of changing passive voice to active voice, changing past perfect tenses to simple tenses, and clarifying pronoun antecedents. The semantic change version involved replacing multimeaning words with specific ones and double negative statements with positive ones. The syntactic and semantic change version incorporated all changes made in the latter two versions. Comprehension assessment for all treatment groups consisted of one inferential, one vocabulary, and eight factual questions. A one-way ANOVA revealed that groups that read passages with syntactic changes only and with both syntactic and semantic changes excelled significantly in comprehension over the control group. Comprehension was not improved significantly from semantic changes alone.

WOLF, YUVAL; WALTERS, JOEL; & HOLZMAN, SUSAN. (1989, April/June). Integration of semantic and structural constraints in narrative comprehension. *Discourse Processes, 12*, 149-167.

Presents the findings of six experiments where Israeli high school students were asked metalinguistic questions dealing with the logic (semantic elements) and organizational nature (structural elements) of a story that had been manipulated by varying the compatibility of a protagonist and his report of having done all, some, or none of the work assigned to him. Story structure was manipulated so that sentences were presented in a fully fixed, partially mixed, or nonmixed order. Manipulations were based on Information Integration Theory and procedures of Functional Measurement. Researchers read the story as subjects followed along. Subjects were asked to make a judgment on a response scale of the logic and the organization of the story. Each succeeding experiment investigated the validity of a finding of the previous study. Main effects were obtained for both semantic and structural aspects of the narrative, providing support for use of a simple averaging rule to integrate the two types of textual information. The researchers conclude that task bias influenced findings.

ROYER, JAMES M.; MARCHANT, HORACE G., III; SINATRA, GALE M.; & LOVEJOY, DAVID A. (1990, Spring). The prediction of college course performance from reading comprehension performance: Evidence for general and specific prediction factors. *American Educational Research Journal, 27*, 158-179.

Determines the ability of the Sentence Verification Technique (SVT) to predict learning performance in general and in relation to specific types of learning. The SVT is a measure of reading comprehension using content specific text passages that are converted to one of four types of test sentences. Each test sentence is classified as an original, a paraphrase, a meaning change, or a distractor. The student reads the passage and identifies the preceding test sentences as old or new. In Experiment 1, the subjects were 80 freshmen enrolled in an introductory psychology course. The SVT test was based on four psychology journal abstract passages and four book reviews pages resulting in a 12-sentence measure which was administered at the beginning of the semester. Using regression analysis, the SVT performance was related to the end of the course examinations and the GPAs for the next three years. SAT scores also were collected at the end of the first academic year and compared as a predictor variable to the SVT. Results of Experiment 1 indicated that SVT predictable variables accounted for 36% of the variance in the course examination performance and 38%, 36% and 28% of the variance in GPAs for the following three years. SVT performances behaved as general predictors for learning performance. Experiment 2 repeated the original design using 42 psychology students and 96 students enrolled in environmental biology and two SVT tests devised for each course. In Experiment 1, SVT performance predicted both GPA and examination performance, but in Experiment 2, relevant SVT performance (scores by the biology students on biology passages and so on) predicted performance in the related courses but was a poor predictor of overall GPA. These results suggest that SVT scores measure a specific attribute relevant to course learning. When a measure of general attribute (SAT scores) was added to the predictor equation, there was a substantial increase (46%) in the amount of variance accounted for. The implication that the SVT test, as a measure of reading comprehension, can assess two separable kinds of cognitive abilities is discussed.

GOLDSMITH-PHILIPS, JOSEPHINE. (1989, September). Word and context in reading development: A test of the interactive-compensatory hypothesis. *Journal of Educational Psychology, 81*, 299-305.

Studies developmental changes in children's use of context vs. intraword information. Subjects were 14 second-, 22 fourth- and 22 sixth-grade children who had been judged by their teachers as reading on grade level and having no learning disabilities. The Woodcock Reading Achievement Test scores indicated second and fourth graders were above average readers while sixth graders were average. The WISC-R showed no differences in the intellectual ability of subjects in the three grades. Each subject was taped while orally reading one science and one narrative passage from unfamiliar school texts. At each level the passages had been pretested to be at low frustration level, yielding an average error rate of approximately 10%. Children whose error rate far surpassed the average were dropped from the study. Oral reading errors were analyzed on eight modified miscue analysis scales. Factor analysis techniques revealed three information sources for reading: context to identify semantically acceptable words, context to monitor comprehension, and graphophonic information. Second and fourth graders relied on context to identify words by semantic approximation, while sixth graders used graphophonic cues to identify words. Sixth graders made more accurate self-corrections, revealing better ability to use context for comprehension monitoring purposes. Changes in reliance on each of the three information sources showed a linear pattern of development.

CORNISH, IAN M. (1990, February). Comparison of narrative recall in 11-year-old children and adults. *Perceptual and Motor Skills, 70*, 162.

Examines patterns of narrative recall in adults and 11-year-old children. Subjects were 22 children and 54 undergraduate students. All subjects were asked to listen to the same 30-clause passage and then write all they could recall from it. Adults surpassed children in number of clauses recalled. However, the ordering of clauses recalled by both groups supported a "top down" developmental model of narrative comprehension for individuals in the 11-year to adult age range. Both groups employed a process that enabled them to identify the main idea of the passage and then subsumed less structurally important units under it.

KATZ, YAACOV, & BEN-YOCHANAN, AVRAHAM. (1990, February). Reading and cognitive abilities: Research note on a longitudinal study in Israel. *Perceptual and Motor Skills, 70*, 47-50.

Examines, within a nine-year longitudinal study, the relation between verbal ability in kindergarten, reading comprehension in grade 1 and general ability, reading comprehension and academic achievement in grade 8. Participants, over the course of the study, were 60 pupils with upper-middle class achievement oriented backgrounds. Measures administered over the nine-year period included: a test of verbal intelligence at the end of kindergarten; reading comprehension tests at the end of grades 1 and 8; a group test of general intelligence at the end of grade 8; and standardized tests of achievement in language, arithmetic, history, and Bible at the end of grade 8. Coefficients of correlation indicated that verbal ability in kindergarten strongly predicted reading comprehension at the end of grade 1. Reading comprehension at the end of grade 1, in turn, strongly predicted reading comprehension and general intelligence in grade 8, but not academic achievement.

SCHNEIDER, WOLFGANG; KÖRKEL, JOACHIM; & WEINERT, FRANZ E. (1989, September). Domain-specific knowledge and memory performance: A comparison of high- and low-aptitude children. *Journal of Educational Psychology, 81*, 306-312.

Compares third-, fifth-, and seventh-grade soccer experts' and novices' memory and comprehension of a story dealing with a soccer game to investigate whether prior knowledge about a particular domain or overall aptitude level is more important when the task is to acquire and use new information. Subjects were German children numbering 576 and 185 in Experiments 1 and 2, respectively. In Experiment 1, subjects were given assessments of soccer rules and soccer events and sections of a German cognitive abilities test. Subjects simultaneously read and listened to a story on soccer and completed a questionnaire 15 minutes after reading the text. Experiment 2 also added three different memory performance variables: free recalls, a cloze assessment, and a recognition test. Several indicators of strategic operations and metacognitive processes also were collected, including importance ratings, predictions of performance, feeling-of-knowing judgments, and declarative metacognitive knowledge about text recall. No significant differences were found between high-aptitude and low-aptitude experts regardless of their ages. Low aptitude experts outperformed high-aptitude novices on all memory and comprehension measures, suggesting that domain-specific knowledge can help a learner compensate for low overall aptitude on domain-related cognitive tasks.

ZINAR, SUSAN. (1990, June). Fifth-graders' recall of propositional content and causal relations from expository prose. *Journal of Reading Behavior, 22*, 181-199.

Explores the effects of both reader and text variables on recall of propositional content and interpropositional relations from written prose. Subjects were 48 fifth graders; 24 achieved below the 40th percentile and 24 achieved above the 60th percentile on the Comprehension portion of the CAT; all scored above the 40th percentile on the Vocabulary portion of the CAT. High and low comprehenders were asked to read three passages, each reflecting a different textual condition: Explicit Causal, in which propositional relations were signaled by connective words; Implicit Causal, in which propositional relations were not signaled; and Noncausal, in which no propositional relations were intended. After the reading of each passage, each subject's free recall of propositional content and interpropositional relations was assessed. There were no significant differences between low and high comprehenders in terms of recall of propositional content. The presence of causal relations neither helped nor hindered recall of propositional content. A significant effect was found for ability level with regard to recall of interpropositional relations. High comprehenders recalled more explicit causal relations, while low comprehenders recalled no causal relations in any condition. Further explorations of subjects' recalls were made to determine semantic variables and individual recall strategies that might benefit recall of causative relations.

BIGGS, JOHN. (1988, August). The role of metacognition in enhancing learning. *Australian Journal of Education, 32*, 127-138.

Presents and tests a model of student learning emphasizing metacognitive processes. Study 1 was conducted with at risk college students. Subjects were enrolled in a nine-week course in learning skills in which they kept diaries, monitored and discussed progress, and had group encounters. Learning approaches of the two cohorts (n=55; n=58) were monitored with the Study Progress Questionnaire (SPQ), a 42 item self-report assessing the surface, deep, and achieving motives and strategies of the model. Subjects were compared to Australian baseline students. Subjects were high on surface strategy and lower on deep and achieving strategies, with deep and achieving motives and strategies incongruent. Subjects appeared to have high motivation, but inadequate use of appropriate strategies. After intervention, shifts appeared in line with metacognitive learning, with decreases in surface strategy and increases in deep and achieving strategies. In Study 2, two Year 11 classes were tested (n=20; n=23). Subjects studied their own study habits, and were presented with possible alternatives during the seven week program. Monitoring used the Learning Process Questionnaire, the high school version of the SPQ. Significant interactions were found for deep motive, achieving motive and achieving strategy, and for deep-achieving approach scores. Results were similar in pattern to those obtained from the first study. The researcher concludes the usefulness of a metacognitive approach to teaching and self-directed learning.

PARIS, SCOTT G.; WASIK, BARBARA A.; VAN DER WESTHUIZEN, GERT. (1988). Meta-metacognition: A review of research on metacognition and reading. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 143-166). Chicago, IL: National Reading Conference.

Summarizes current research on metacognition. Studies in this area are reported to be descriptive or correlational in nature. Particular emphasis is placed on intervention studies designed for classroom instruction and for teacher development. Dilemmas of research on metacognition and reading included measurement and instructional issues. Concludes by stating that the empirical database in the area of metacognition is weak and that studies devoted to this area of reading are problematic.

ZABRUCKY, KAREN, & MOORE, DEWAYNE. (1989, Summer). Children's ability to use three standards to evaluate their comprehension of text. *Reading Research Quarterly, 24*, 336-352.

Examines the influence of age, reading ability, and amount of instruction on children's ability to evaluate their reading comprehension using three standards. Subjects were 394 fourth, fifth, and sixth graders. Based on their performance on the comprehension subtest of the SDRT, children were assigned to poor, average, or good reading groups. The children were asked to read passages with target sentences that were intact, or that contained a falsehood, an inconsistency, or a nonsense word. Half the subjects received general instructions to underline the problem sentence in each passage when, and if, it was encountered. The other half received the same instructions along with specific examples of three problems they would encounter. Children more often detected nonsense words and falsehoods than they did inconsistencies within text. Specific instructions facilitated average and good readers, recognition of inconsistencies, falsehoods, or nonsense words. Poor readers' performance was not influenced by type of instruction implemented. Different developmental and reading ability patterns were found for the three text problem types. Children's verbal reports pertaining to problems detected during passage reading did not correlate with their performance on error detection measures. Verbal report data was thought to be of limited value by the authors.

BAKER, LINDA, & ZIMLIN, LAURIE. (1989, September). Instructional effects on children's use of two levels of standards for evaluating their comprehension. *Journal of Educational Psychology, 81*, 340-346.

Assesses whether fourth graders who are average readers and above average readers will generalize taught standards for evaluating comprehension to other untaught standards and whether instructional effects of the taught standards will be maintained over time. Eighty subjects received one of three treatments: instruction in three higher level macrostructure standards, instruction in three lower level microstructure standards, or no instruction. Standards included lexical problems, external consistency, propositional cohesiveness, structural cohesiveness, internal consistency, and informational completeness. After instruction, subjects were given two passages corresponding to each of the six standards and asked to identify parts that were hard to understand. Subjects were tested two to three weeks later with similar passages. Both instructional groups benefited equally from their respective training procedures. Less skilled readers were as capable as skilled readers in applying the training standards to simple passages. Performance levels remained stable from the immediate test to the delayed test. While subjects receiving microstructure instruction declined on the delayed test for microstructure problems, suggesting that the training for the macrostructure groups was more durable than for the microstructure group, the performance of the microstructure group still exceeded that of the noninstructed groups. Problems of external consistency, informational completeness and internal consistency were identified more often than problems of lexical, propositional cohesiveness, and structural cohesiveness.

Moore, DeWayne, & Zabrucky, Karen. (1989, September). Verbal reports as measures of comprehension evaluation. *Journal of Reading Behavior, 21*, 295-307.

Assesses the comparability of different measures of children's comprehension ability. Subjects were 120 third and sixth graders identified as having higher or lower reading ability by performance on the SDRT. Subjects read texts containing a context sentence that was either factually congruent or factually incongruent with a later target sentence. Distance between context sentence and target was either close or far. After reading, subjects completed six measures of comprehension. A performance measure asked them to underline any incongruent sentences. They then circled responses for the verbal report measures assessing story understanding, sensibleness of story information, and unexpectedness of story information. A least-squares MANOVA revealed a significant effect for grade, with fewer correct for third graders, and significant effect for congruence, with fewer correct for incongruent passages. Verbal report measures interacted with grade and with congruence, with differences most pronounced for story sense. Children were less likely to report that the story made sense for incongruent passages. A main effect for grade, for verbal report measure, and for congruence also were found. Consistently stronger relations between performance and verbal report measures were found for third than for sixth graders and for higher than for lower ability third grade readers. Only the question "Did everything in the story make sense?" showed a consistent relation to performance measure.

Hurt, Jeffry, A. (1987, Summer). Assessing functional effectiveness of pictorial representations used in text. *Educational Communication and Technology Journal, 35*, 85-94.

Conducts a study of the effectiveness of analogical and literal illustrations in college-level science material. Subjects were 90 male and 90 female undergraduates, randomly selected from college general education courses. Materials consisted of two expository passages, approximately 800 words in length, selected from monographs used as college-level supplemental texts. Both passages had literal drawings illustrating phenomenal information included in the text. Analogical illustrations were developed to visually clarify nonphenomenal information presented. One illustration, presented on the second page, appeared with each passage. Ten multiple-choice questions concerning information found in the text accompanied each passage, five relating to phenomenal and five related to nonphenomenal information. Half the group received a passage using the analogical representation first, and the other half read the same passage with the literal illustration first. ANOVA techniques revealed no significant differences for the main effects of treatment, gender, and test. There was a significant difference in the ability of subjects to respond to both types of questions depending on the type of illustration used. More questions of a nonphenomenal nature were answered correctly by subjects who read the passage with an illustration providing analogical representation than by subjects who read the same passage with a literal illustration. The reverse was true for questions of a phenomenal nature. Thus it was concluded that the illustrations served specific instructional functions.

Blohm, Paul, J. (1987, Winter). Effect on lookup aids on mature readers' recall of technical text. *Reading Research and Instruction, 26,* 77-88.

Investigates mature readers' comprehension monitoring behavior when using fixup activities to remedy comprehension failures in abstract text. Subjects were 80 undergraduate education majors enrolled in a content-area reading course. They were presented two highly technical science articles to read on a computer screen with two versions of each article developed. As subjects signed onto the computer, they were randomly assigned to either a read-only group or to a lookup treatment group. The latter were able to call up on the computer a nontechnical restatement of each sentence in the original version by pressing the appropriate key. They were instructed to reread the sentences first and to use only those lookups that were necessary to aid them in understanding the content. The computer recorded each instance of a lookup. A free-recall follow-up test was then used with each group. The number of idea units recalled was the dependent measure in ANOVAs used to treat the data. Experimental subjects demonstrated superior performance. A Pearson product-moment correlation coefficient of .13 was found between the number of lookups used and the number of idea units recalled. No significant difference was found for amount of reading time required between the two groups.

Stark, Heather A. (1988, July/September). What do paragraph markings do? *Discourse Processes, 11,* 275-303.

Investigates the role of paragraph markings in text in two studies designed to determine how informative a paragraph cue is and how paragraph cues affect interpretation. In the first study, 21 undergraduates enrolled in introductory psychology courses were shown unparagraphed versions of three texts and asked to reinstate the paragraphs markings. The second study focused on the effect of paragraph marking on reading time, ratings, and judgment of important ideas in the text when paragraphs were the original ideas of the author, or were new scrambled sets of cues, or when there were no paragraphs at all. Expository essays by well-known authors were used in both studies. Results indicated that texts differ in how consistently they can be divided into paragraphs and how accurately the subjects agreed with the authors' original paragraphing. Confidence ratings were not systematically related to accuracy or agreement. Subjects did not seem to use length cues or changes in surface subjects of main clauses of sentences. Theme-marking and coordination were more common in specific clauses at beginning and ending sentences. Boundaries were signalled by overreference and stylistic contrast. In the second study, conducted with a similar group of 21 students, use or misuse of paragraph boundaries had no effect on reading rate or ratings of ease of reading, coherence, or goodness. Which text was used affected reading and rating. Paragraph boundaries did affect judgments of what sentences were considered to be important.

Liebling, Cheryl Rappaport. (1989, Spring). Inside view and character plans in an original story and its basal adaptation. *Theory into Practice, 28,* 88-97.

Contrasts an original story and its basal reader adaptation for differences in character plans and inside view. The story studied was "Freckle Juice" by Judy Blume and its adaptation in a third grade basal reader. Content of sentences in the original version was analyzed to identify information relevant to the understanding of each character's goals, beliefs, and actions. A line-by-line comparison was then done of the original and adapted versions to determine whether event structure, character plans, and inside view of the original were re-

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tained. The adaptation had been shortened by about one-third by deleting segments of the texts. Data were tabulated on the number of sentences in the original text that were deleted and the inside view and character plans information that were deleted as a result of editorial changes. The findings indicated that the deleted segments contained information that helped the reader create believable characters and interpret character interactions with respect to each character's underlying goals and beliefs. It was concluded that the adapted version differed in important respects from the original.

WALCZYK, JEFFREY J., & HALL, VERNON C. (1989, April). The effects of setting, thematic familiarity, and type of contradiction on comprehension monitoring. *Contemporary Educational Psychology*, *14*, 145-152.

Examines comprehension monitoring behavior as it is influenced by setting, thematic familiarity, and type of inconsistency in reading material. Subjects for Study 1 were 64 third graders from a suburban school. The pupils were randomly assigned to four conditions in which they were asked to read passages having either familiar or unfamiliar themes and which contained either numerical or logical inconsistencies. Half were told the materials might be used for math instruction, and half were told they might be for reading instruction. Subjects orally read each passage twice. Pronunciation difficulties were aided during the first reading, after which subjects were asked to tell about anything in the passage that did not make sense. After the second reading, the same question was asked along with four additional recall questions. All reading and recall testing was taped for later scoring. Children who read familiar themes with numeric inconsistencies outperformed all other groups whose performances were nearly identical. The perceived setting for use of the materials had no effect on performance. Study 2, which was conducted to adjust for design problems in Study 1, yielded findings which replicated Study 1.

YUSSEN, STEVEN R.; REMBOLD, KAREN L.; & MAZOR, AVIVA. (1989, July/September). Identifying main ideas in picture stories and written narratives. *Journal of Applied Developmental Psychology*, *10*, 313-335.

Reports seven preliminary and one developmental study. In preliminary studies, subjects (university undergraduates) identified main ideas in WISC-R pictures and in written narratives. These studies determined how adults rank the different alternatives in the pictorial and verbal formats and determined the equivalence of the forms. The two versions then were given to 104 second-, fifth-, and eighth-grade children, with each subject receiving one version, pictorial or verbal. In the pictorial version, subjects looked at a complete picture story. Then they were given a set of picture alternatives and asked to select the picture which best told the meaning of the whole story. After the best picture had been selected, subjects ranked the remaining pictures. In the verbal condition, subjects read the story silently while the researcher read the story to them. They were presented with four sentences and asked to choose which best captured the meaning of the entire story. Remaining sentences were ranked. Two measures were obtained for each subject, a number correct and an average rank for the alternatives across the stories. Significant differences were found on both pictorial and verbal conditions, with an increased ability across grades to identify the best consensus statement or picture summarizing a story. Most differences were between second graders and fifth graders. Eighth graders did no better than fifth graders, but had greater differentiation in rankings. The researchers concluded that difficulty of task is not specific to difficulty in visual or verbal modality.

GRABE, MARK. (1989, December). Evaluation of purposeful reading skills in elementary-age students. *Journal of Educational Psychology*, 81, 628-630.

Compares more and less able fourth-grade readers on their ability to identify text segments containing question-relevant information and to answer assigned questions. Subjects were 43 fourth graders who were designated as more or less able readers on the basis of a median split of their reading subtest scores on the ITBS. Three stories were prepared, each consisting of 20 four-sentence paragraphs. Each story was divided into 10 segments with a multiple-choice question following each segment. Questions required the combination of information across sentences or the recognition of information in a paraphrased format. Pupils were given two randomly selected stories to read on a microcomputer and the questions for each story. The stem from the question was first shown at the top of the screen with a paragraph from the story appearing below the question stem. The pupil then was asked whether the answer could be found in the paragraph. If the paragraph did contain the answer, it was removed from the screen after the pupil responded and the complete multiple-choice question appeared. If the answer was not in the paragraph, the next paragraph from the text appeared. Pupils' scores were determined by errors in identifying the needed information and performance on the multiple-choice questions. More able readers were more accurate in determining when they had found the relevant information and in answering the questions. Less able readers appeared to gain no advantage in performance when they were aware that the information to answer the question was present; more able readers, on the other hand, demonstrated more than a 20% advantage in performance when they were aware that the information to answer the question was present.

MILLER, SAMUEL D. (1990, May). Low- and high-achieving fourth graders' ability to understand basal worksheet directions. *Elementary School Journal, 90*, 485-495.

Interviews 37 fourth-grade high- and low-achieving pupils to explore their ability to understand worksheet directions, the cognitive processes they employed when reading directions, and their ability to identify the purposes for completing worksheets accurately. Subjects were nominated by teachers from five fourth-grade classrooms in one school; scores from the CAT were used to confirm their ability levels. Pupils were interviewed individually by the investigator with questions regarding four easy and four difficult worksheets. Difficulty of a worksheet was determined by identifying the number of steps in the directions. Three types of questions were asked each subject and focused on what to do to complete the worksheet, how the pupil determined that, and what the specific purpose of the worksheet might be. All interviews were taped, and responses were transcribed. Analyses of how errors were related to cognitive processes were completed by identifying trends of difficulties low and high achievers experienced and the strategies subjects used when reading easy and difficult directions. Responses to why worksheets were assigned also were classified. High achievers were more successful than low achievers at understanding both easy and difficult directions, and both understood easy directions better than difficult ones. On worksheets with easy directions, responses from both groups were generally acceptable. On worksheets with difficult directions, about half of the high achievers and all of the low achievers' errors were unacceptable. When reading the easy directions, high achievers frequently read for such specific information as the type of mark required to indicate a response. On the difficult directions, high achievers read the entire directions, developed hypotheses concerning the requirements, tested their hypotheses by completing a few items, and reread directions. Low achievers' dominant strategy was to read and reread the easy directions. Low achievers appeared overwhelmed by difficult directions and read to see how they might indicate their response. Both groups of pupils were more successful at identifying the purpose of completing the difficult worksheets than the easy worksheets.

COOK, LINDA K., & MAYER, RICHARD E. (1988, December). Teaching readers about the structure of scientific text. *Journal of Educational Psychology, 80*, 448-

456.

Reports two studies with undergraduates to determine whether skilled readers are aware of expository text structures in science and, if they aren't, whether they can be taught to improve their awareness of text structure and subsequently improve their reading comprehension. In Study 1, subjects were given four passages of five different types of text structures, descriptions on the text structure categories, and asked to group the passages of their structural similarity. The experimental group received instruction on how the passage fit the definition for its text structure. Significant differences were found between groups. The researchers concluded that subjects did not have fully developed category concepts for expository text. Study 2 with 28 junior college students investigated whether direct instruction in identification and use of text structure can improve comprehension of scientific text. Three passage sheets accompanied by 12 question sheets and a recall sheet were used for pretest/posttest materials. Training materials were three worksheets on generalization, enumeration, and sequence. The experimental group received 8 to 9 hours of training in how to identify and use these text structures. The trained group showed a 30% gain for high conceptual information and a 14% loss for low conceptual information. The control group gained 12% in low conceptual recall but 0% in high conceptual recall. Results were statistically significant. The researchers concluded that training helps students integrate and apply material.

Graves, Anne W., & Levin, Joel R. (1989, Summer). Comparison of monitoring and mnemonic text-processing strategies in learning disabled students. *Learning Disability Quarterly*, *12*, 232-336.

Studies the effects of monitoring and mnemonic text-processing strategies on the ability of LD fifth through eighth graders to identify and remember main ideas. Thirty LD pupils were selected to participate in the study on the basis of reading ability and IQ. Subjects wre randomly assigned in equal numbers to three experimental conditions. The control group was given direct instruction relevant to identifying the main idea of a passage. The monitoring group was taught how to self-question in order to monitor and check progress toward identifying the main idea of a passage. The mnemonic group was taught to use an adaptation of a mnemonic keyword method to create an interactive image between the keyword for the passage title and the main idea of the passage. Each pupil participated in one session of individual training, which concluded with a main idea identification test and an immediate recall test. Subjects returned a week later for a delay recall test. Analyses of main idea identification scores revealed that subjects in the monitoring condition statistically outperformed subjects in the other two conditions; subjects in the mnemonic condition scored significantly higher than subjects in the control group. For the immediate and delayed tests of main idea recall, mnemonic subjects were statistically superior to subjects in the other groups. Monitoring and control groups did not differ significantly.

Risko, Victoria, & Patterson, Alice. (1989). Enhancing students independent learning and text comprehension with a verbally rehearsed composing strategy. In Bernard L. Hayes & Kay Camperell (Eds.), *The yearbook of the American Reading Forum* (pp. 61-71). Salt Lake City, UT: University of Utah: American Reading Forum.

Analyzes the content of notes generated by three groups of 27 sixth- and seventh-graders enrolled in a remedial reading program in an innercity school. One group was encouraged to independently rehearse story ideas with a notetaking and reflection strategy. One group used a group verbalization and concept mapping strategy. The third group used a thematic advanced organizer combined with a group-composing and concept-mapping strategy. Each group received three days of instruction before reading a short story divided into three parts. Time limits were held constant, with 25 minutes assigned to story reading and pauses for strategy rehearsal, 10 minutes for reflection or concept mapping, and 10 minutes for writing retellings using notes or concept maps. Two procedures were used to score notes: parsing into complete-idea units and comparing units with their text counterparts, and evaluating story grammar elements, including setting, theme, plot episodes, and resolution. Notes were analyzed separately for each scoring procedure. Quantitative and qualitative differences were noted among groups. Subjects receiving either of the verbal composing strategies produced more gist, theme, and plot statements than the group asked to take notes independently. Notes were less complete and less focused without the group rehearsal.

GORDON, CHRISTINE J. (1990, Winter). Contexts for expository text structure use. *Reading Research and Instruction*, *29*, 55-72.

Examines the conditions under which students use knowledge of expository structure as well as the ways in which such knowledge is used. Subjects were 28 average to above average sixth graders who received instruction in the use of four expository text structures combined with aspects of the process approach to reading and writing over a nine-week period. A qualitative assessment administered to the subjects prior to and following instruction consisted of a structured interview inviting retrospection about the familiarity and use of text structure. Additional data included pre- and postwritten recalls of short and long expository passages as well as compositions on a given topic. Responses from both types of assessments showed students used text structure knowledge as a result of direct instruction. Patterns of responses from the interviews showed that, following instruction, students used text structure knowledge under various conditions. For reading, these included: when cued by the instructor; when cued by the text itself; and when material was familiar, easy, and interesting. For writing, these included: when organizing reports for social studies and science, when planning compositions, and when completing everyday tasks involving writing. Examinations of written recalls and compositions confirmed pupil use of text structure knowledge under stated conditions.

FRIEND, HAROLD; KARSCH, SOL; & SIEGAL, SHIRLEY. (1989, May). The effect of *Newsday's* Science Education Series Program on selected ninth-grade students' comprehension of science reading material. *Journal of Research in Science Teaching*, *26*, 453-462.

Explores the effects of *Newsday's* Science Education Series Program on students' comprehension of science reading material. Subjects were 136 ninth graders whose reading and mathematics achievement test scores were either on grade level or at least two years above grade level. Students at each achievement level received one of three treatments depending on the classroom to which they had been assigned at the year's beginning. For Treatment 1, subjects followed the program which required the use of activity worksheets that fostered content goals as well as reasoning skills related to science. The program was used one day a week for 10 weeks in conjunction with a newspaper science article related to content goals. For Treatment 2, students were directed to read the same newspaper article as was used in Treatment 1, but not in conjunction with the rest of the program. For Treatment 3 (the control treatment), students were exposed to the content within the newspaper article. Directed reading of the article and use of the program did not occur. Students' DRP posttest results were compared with their DRP preexperiment pretest results. ANCOVA procedures applied to the data indicated that high achievers who were taught through directed reading of the newspaper article alone had higher DRP scores than peers who experienced the *Newsday's* program or the content only program. There were no significant differences in students' DRP performances stemming from exposure to the *Newsday's* and content only program.

REUTZEL, D. RAY, & MORGAN, BONNIE C. (1990, April/June). Effects of prior knowledge, explicitness and clause order on children's comprehension of causal relationships. *Reading Psychology*, *11*, 93-114.

Investigates the effects of prior knowledge, explicitness, and clause order on readers' ability to infer causal cohesive ties in text. The sample included 84 fifth-grade and 84 sixth-grade pupils randomly selected from the total fifth- and sixth-grade population of a large elementary school. The comprehension subtest of the GMRT, Level D, was used to assess reading achievement; a free association method was used to evaluate prior knowledge. The stimulus materials, passages of 60 words, were developed from three passages taken from each social studies textbook used. Four versions of each passage were developed: an explicit-normal-clause-order version, an implicit-normal-clause-order version, an explicit-reversed-clause order version, and an implicit-reversed-clause-order version. Comprehension of the causal relationships in the passages was assessed by a free recall task, a yes-no-why question, cohesion cloze tasks, and literal and inferential questions. Within each grade level, a three-way ANCOVA, with reading achievement as the covariate, was conducted for each of the dependent variables. A Student-Newman-Keuls was used as the post hoc multiple mean comparison procedure to analyze the three means for the three levels of prior knowledge. Significant effects for explicitness were found for fifth-grade readers on all variables, but only on the cohesion cloze task for sixth-graders. Significant effects for prior knowledge were found for both grades on all variables except the cohesion cloze task. Significant effects for clause order were found for fifth-grade readers on literal comprehension and fifth- and sixth-grade readers on the cohesion cloze task. There was a significant interaction between prior knowledge and clause order on the literal comprehension variable for fifth grade. No other significant interactions with prior knowledge were found.

AFFLERBACH, PETER. (1990, June). The influence of prior knowledge and text genre on readers' prediction strategies. *Journal of Reading Behavior*, *22*, 131-148.

Researches readers' prediction processes as influenced by prior knowledge and text genre. Subjects were 15 competent readers, 10 graduate students and 5 high school juniors, in an advanced English program. Each subject was given three essays and two short stories to read at his/her own pace. As each selection was being read, the subject was encouraged to think aloud and verbally report on the prediction strategies being used. The verbal reports were recorded for later transcription. In addition, the subjects completed rating scales on their relative familiarity with the content of each selection. All subjects made more predictions on stories and essays rated most familiar. There were no significant differences among the relative frequencies of reported predictions obtained for short stories and essays rated most familiar, suggesting text genre does not determine the extent to which readers use prediction strategies. Qualitative procedures applied to verbal report protocols suggested prior knowledge of content, text structure and perceived intent of author significantly influenced the number of predictions readers reported. Feedback from comprehension monitoring allowed the subjects to determine the accuracy of their predictions as well as the generation of deliberation of further predictions. Results are discussed in terms of their implications for theory and practice.

HOLLINGSWORTH, PAUL M., & REUTZEL, D. RAY. (1990, March/April). Prior knowledge, content-related attitude, reading comprehension: Testing Mathewson's affective model of reading. *Journal of Educational Research*, *83*, 194-199.

Explores the influence of content attitude on comprehension and recall of text that is controlled for prior knowledge. Subjects were 78 sixth-graders from one school in a middle to lower SES community. Subjects were randomly assigned from three levels of reading ability, as determined by the CTBS, into three classes, each having an instructor trained to implement treatment. Each instructor taught a five-day unit on a fictitious country. The information presented was the same for each treatment group, except that each instructor slanted his or her presentation to produce an attitude that was uniquely intended for his or her assigned group: favorable, unfavorable, or neutral. At the culmination of the unit, each group was assessed on a researcher-developed attitude scale. Chi-square analysis revealed a significant difference in the attitude of the three treatment groups, confirming that the intended attitude for each group had been created. The subjects than read a neutral passage about the country and were given a related multiple-choice and free recall test. A series of MANCOVA and ANOVA procedures using the CTBS reading scores as a covariate revealed no significant differences in comprehension due to attitude. Qualitative analyses of free recall protocols revealed a few errors that could be attributed to treatment.

McCormick, Sandra. (1989, September). Effects of previews on more skilled and less skilled readers' comprehension of expository text. *Journal of Reading Behavior, 21*, 219-239.

Assesses the viability of using written previews before reading social studies text as a means of increasing reading comprehension. Subjects were pupils in four fifth-grade classrooms in a large metropolitan school district who were divided into less skilled (n=43) and more skilled (n=33) categories on the basis of CTBS scores. Written previews consisted of questions, synopses, and vocabulary and took approximately 10 minutes of instructional time. Twelve questions were written for the four paragraphs: three explicit and three implicit on the passage alone, and three explicit and three implicit based on information in the passage and the preview. Each class read all four passages over a two-week period, two under a preview condition and two under a traditional condition. Subjects then completed the questions. For all subjects, test scores were higher after the preview condition. Less skilled readers scored higher on explicit questions than on implicit questions in both conditions.

Neuman, Susan B. (1988). Enhancing children's comprehension through previewing. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 219-223). Chicago, IL: National Reading Conference.

Compares the effects of previewing as an independent instructional technique and in relation to traditional introductions provided by basal readers. Seventy-one fourth grade pupils from three classrooms were randomly divided into a preview versus no-preview condition. Four stories were selected from children's literature. Over the two-week period, pupils in the treatment condition received preview questions that generated discussion among the children but were guided by the teacher. The purpose of the preview was to create interest, activate prior knowledge, and introduce background information. The no-preview group used the traditional basal approach to introducing a story. Findings indicated that children who received treatment previews produced more correct responses on the multiple-choice comprehension test than did children in the control group. However, when previewing was used as an independent prereading technique, test scores declined, suggesting that previewing did not enhance story understanding when used alone.

Denner, Peter R.; McGinley, William J.; & Brown, Elizabeth. (1989, July/August). Effects of story impressions as a prereading/writing activity on story comprehension. *Journal of Educational Research, 82*, 320-326.

Studies the usefulfness of story impressions as a prereading/writing activity for improving story comprehension. Story impressions were story fragments, words or phrases that enabled pupils to compose an anticipatory model of a yet-to-be-read passage. Participants were 60 second grade pupils, classified as above-average or below-average readers according to SRA reading scores. They were randomly assigned to either the story impressions preview or to the no-preview treatment condition. Subjects in the experimental condition were asked to compose a story of their own on the basis of the impression clues developed for one story. The no-preview group was presented with the story without specific preparation. Following the reading of the 841-word story, a posttest of 21 questions was administered orally to individuals to assess comprehension. The results of ANOVA testing revealed that pupils who engaged in the preview activity, whether above- or below-average readers, correctly answered significantly more of the comprehension questions than pupils who only read the story. In addition, the story impressions preview had an equal effect on both impressions-related and impressions-unrelated test items. Examination of the match between the readers' story guesses and the author's actual text further demonstrated that the enhanced comprehension scores of the pupils in the impressions group were not contingent upon their ability to closely approximate the author's story in their own story guesses.

IV-23 Research design

Shannon, Patrick. (1989, June). Paradigmatic diversity within the reading research community. *Journal of Reading Behavior*, *21*, 97-107.

Identifies and defines the paradigms employed in reading research to ascertain a clear description of efforts. Research articles from the *Reading Research Quarterly* (vols. 1-21) and the *Journal of Reading Behavior* (vols. 5-18) were identified for analysis. Classification of 706 studies was completed by three readers who considered the article abstracts and assigned them to one of three categories: Empirical/Analytic (E/A) Science, Symbolic Science, or Critical Science. Prestudy training in classifying abstracts resulted in 93% agreement among readers. Results demonstrated that nearly all of the articles employed the assumptions from natural and physical (E/A) science. Of the 357 studies published in RRQ, 97% were classified as fitting the assumptions of E/A Science, 2% fit Symbolic Science, and 1% fit Critical Science. In JRB, of the 351 articles with abstracts, 99% were considered examples of E/A Science, 1% were classified as Symbolic Science, and none were classified as Critical Science. It also was observed that although there was diversity within the E/A paradigm concerning topic of study, methodological approaches, dependent measures and such, there was little evidence of diversity among paradigms.

Lysynchuk, Linda M.; Pressley, Michael; d'Ailly, Hsiao; Smith, Michael; & Cake, Heather. (1989, Fall). A methodological analysis of experimental studies of comprehension strategy instruction. *Reading Research Quarterly*, *24*, 458-472.

Examines the methodological strengths and weaknesses of 37 studies on reading comprehension instruction. Studies reviewed were those which appeared in several leading refereed journals over the 1977-1988 time period. Each study was read by four of the authors who then independently assessed it according to various criteria for internal and external validity. Authors were in 94% agreement on the standards met. While the studies were generally recognized as having many strengths, weaknesses frequently recognized included failures to: (1) randomly assign subjects or classes to treatment and control conditions; (2) provide training materials to control as well as to experimental subjects; (3) provide information regarding time spent on dependent variable tasks by both experimental and control subjects; (4) avoid teacher by treatment confounds; (5) use or report appropriate units of analysis; (6) check on successful completion of manipulation and process measures; (7) measure long term effects; and (8) assess transfer of learning to other reading tasks. Since research influences theory formation and practice, guidelines to eliminate flaws in the design of future research on reading comprehension instruction are presented.

Jackson, Nancy Ewald, & Butterfield, Earl C. (1989, December). Reading-level-match designs: Myths and realities. *Journal of Reading Behavior, 21*, 387-412.

Discusses the use of reading-level-match (RL-match) designs in the study of reading performance and evaluates research using these designs to identify both misunderstandings (myths) and appropriate solutions. Results of this evaluative review suggested that researchers have misunderstood the design's characteristics. Specific problems included using RL-match designs as if they (1) were more similar to true experiments than other correlational designs; (2) required only informal sampling procedures; (3) were improved by case-by-case matching; (4) made unequal groups equal; (5) served unique theoretical purposes; (6) created equality between groups in underlying processes whenever a performance-level match existed; (7) yielded some patterns of results that always were interpretable and others that never were interpretable; and (8) were equally valid across all possible matching criteria. Relevant statistical and design principles were summarized. It was suggested that RL-match designs are best perceived as correlation studies in which matching procedures may enhance statistical conclusion validity at the expense of external, construct, and internal validity. Sensible use of RL-match comparisons requires thorough understanding of statistics, measurement, and relevant theories of reading acquisition.

Goswami, Usha, & Bryant, Peter. (1989, December). The interpretation of studies using the reading level design. *Journal of Reading Behavior, 21*, 413-424.

Discusses issues of control group design in experimental studies of RD children and suggests that this research has been strengthened by the addition of a reading level (RL) control group to the more traditional CA control group design. Studies applying either a RL or CA control group design were reviewed to clarify appropriate interpretations of positive and negative findings. It was suggested that appropriate interpretations of possible causes of reading failure could be determined in only two specific conditions: (1) studies that utilized a RE design and resulted in positive findings; and (2) studies that utilized a CA design and resulted in negative findings. It was further suggested that even though the use of the RL control group was an appropriate first step in researching possible causes of reading failure, this design did not distinguish between specific deficit and developmental lag interpretations of reading disability.

V. *The teaching of reading*

V-1 Comparative studies

King, Dorothy F.; Crenshaw, Shirley; & Watson, Dorothy. (1989, Fall). Reading instruction: Differences in teachers' language focus. *Reading: Exploration and Discovery, 12*(1), 38-52.

Identifies two first grade teachers exemplifying differences in their views of language learning and learners and notes the instructional foci of each during language and reading instruction. One teacher used a skills approach while the other was identified as a whole language teacher. The teachers were similar in years of experience; both classrooms were located in rural communities nearly identical in terms of socioeconomic status, ethnicity, and occupational opportunities. Videotaped data were collected in each classroom beginning the first week of school and continuing throughout the year for a total of eight two-hour tapings. Audiotapings, field notes, teacher journals, and samples of children's written work also were collected. Tapes were transcribed and analyzed for language units and language systems on which the teacher focused instruction and for the aspects of the reading process emphasized by the teacher. In the skills-oriented classroom, attention was directed to the mastery of small units of language, while the whole language teacher called pupils' attention to meaning construction and the development of personal relationships with larger units of text.

O'Flahavan, J.F.; Hartman, Douglas K.; & Pearson, P. David. (1988). Teacher questioning and feedback practices: A twenty-year retrospective. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 183-208). Chicago, IL: National Reading Conference.

Observes teacher questions, pupil responses and teacher feedback in reading group discussions at the second, fourth, and sixth grades. Fifteen teacher volunteers from a large urban district were selected based on their years of experience, grouping practices, and teaching abilities for participation in the study. Classroom discussions (n=57) during reading groups were videotaped and transcribed. Each utterance was coded using a modified classification scheme. In comparing the results of this study with earlier reports on teacher questioning practices, it was found that recognition and recall questions have decreased, while questions focusing on explaining or translating have increased for all grade levels. Twenty-five percent of all questions teachers asked were related to background knowledge. As the grades increased, the congruency between the questions asked and the responses given decreased, as well as the frequency of teacher feedback provided. Teacher feedback focused on affirming responses, commenting on congruent responses and repeating questions. All reported findings are discussed in comparison with results from a 1967 study.

McCarthy, William G. (1990, Spring). A comparison of American social values in McGuffey and contemporary basal readers. *Journal of Reading Education, 15,* 14-21.

Asks whether values in current basal readers are the same as or different from those found in the McGuffey readers. Four classes of values were felt to be expressed in the McGuffey series: (1) Relationship to a Deity, (2) Belief in Design in Nature, (3) Reverence and Respect for Nature, and (4) Concern and Love for Humanity. Although the five current series examined did show some stories expressing values in three of the above classes, there were differences between the McGuffey and newer series. It was felt that the McGuffey readers emphasized doctrine first and story content second. Current materials, on the other hand, often presented stories based on actual experiences of children with values related to present day concerns. Both sets of materials were felt to portray a strong emphasis on morality and both expressed similar instrumental values of love and concern for others and respect for nature.

Caputo, John S., & Wynyard, Robin. (1989). A tale of two practices: A cautionary look at the teaching of literacy in the U.S. and the U.K. In Malcolm P. Douglass (Ed.), *Reading: A literary feast* (pp. 124-137). Claremont, CA: Claremont Graduate School.

Uses the results from seven years of classroom observations to informally compare schools in the United States and England on their cultural place for literacy, their teaching pedagogy, and their governmental pressures on education and experiences. Cautions are raised in light of changing practices.

Eisemon, Thomas Owen. (1988). Benefiting from basic education, school quality, and functional literacy in Kenya. New York: Pergamon.

Compares the effects of literacy instruction in religious and secular institutions in the Msambweni location in the Kwale district of Kenya. Data were collected over a 6-month period, and the effects of the 2 different approaches to learning were examined with reference to the comprehension of religious and scientific texts. Observational and descriptive data are reported. In addition, a sample of students from each type of school were given texts to read and questions to answer. Protocols were scored for correctness of response. Children who had undergone a lengthy course of study in a Koranic school appeared to perform better. For another phase of the study, adults who had completed a minimum of 6 years of primary school were asked to perform a series of tasks calling for recall of information and for inferences. Findings suggested that how individuals become literate and acquire knowledge in school has an influence on the use made of schooling during their adult years. Other areas dealt with include the availability of textbooks, the language in which instruction occurs, examinations, teacher training, and methods of instruction.

NARUSHIMA, HAJIME. (1989, October). An investigation of the principles of comparative reading. *Science of Reading, 33*, 56-64.

Analyzes a novel for its feasibility as a comparative reading material for high school students. In comparison with two other novels from the same era, commonalties among author perspectives were found. The researcher concludes that such materials are closely related and are valid selections for comparative reading activities.

BRITTAIN, MARY M.; BORAKS, NANCY; & LINDER, FREDRIC. (1989). Transaction and interaction with children's literature: Direction of policy. In Bernard L. Hayes & Kay Camperell (Eds.), *The yearbook of the American Reading Forum* (pp. 55-59). Athens, GA: American Reading Forum.

Presents the first of a three-part study concerning the impact of school and state policy on recommended and required reading. Part 1 surveys and describes policies regarding classroom literature selection in the elementary and middle grades. Two-part surveys were mailed to school superintendents and headmasters in all districts and counties of Virginia. Part 1 asked for demographic data; part 2 asked three questions regarding reading policies on recommended or required reading lists. On the 208 questionnaires returned, 53% responded that they had no policy. Private schools were more likely to have a policy than were public schools. The majority of respondents, 55%, indicated that they did have a list of recommended reading, with private schools again more likely to have a list than were public schools. Seventy percent of the entire sample said they had no list of required reading.

V-2 Status of reading instruction

VENEZKY, RICHARD L.; KAESTLE, CARL F.; & SUM, ANDREW M. (1987). *The subtle danger: Reflections on the literacy abilities of America's young adults*. Princeton, NJ: Educational Testing Service.

Summarizes important findings of the National Assessment of Educational Progress (NAEP) Young Adult Literacy Assessment and discusses the implications for both immediately relevant and more general concerns. Some 3,600 young adults, ages 21-25, constituted the national sample represented in the NAEP report. An early chapter of this report gives a brief overview of the historical roots of literacy and literacy assessment in America. The methodology and reporting scheme of the assessment are outlined in Chapter 3, findings of specific literacy abilities in Chapter 4, and findings of the relationship of literacy abilities to background characteristics of respondents are presented in Chapter 5. The final chapter deals with implications for education, employment, and citizenship. The authors generally conclude that the literacy levels found are not on the average adequate for maintaining world leadership in a society that is both changing and technological. It was noted that the literacy skills currently taught do not transfer well to everyday literacy demands and are not sufficient for ensuring that problem-solving skills are acquired.

Cooper, Harris. (1989). *Homework.* White Plains, NY: Longman.

Gathers, summarizes, and integrates the scholarly literature on the effects both of homework per se and of specific homework procedures. An attempt was made to collect all research on the topic conducted over the past half century. Some 100 studies were identified and included in the book which is divided into five major parts. The first two chapters constitute the first part and give a general definition of homework as well as a review of conclusions from past efforts to synthesize the literature in this area. Part 2 describes the strategy used in this literature review and the procedures employed in synthesizing the results of the various studies. Part 3 examines the research on the effects of homework, and Part 4 looks at how variations in assignments could influence the effects of homework. In part 5 there are implications for practice and future research.

Blanton, William E., & Moorman, Gary B. (1990, Spring). The presentation of reading lessons. *Reading Research and Instruction, 29,* 35-55.

Observes reading lessons to quantify the time devoted to use of instructional practices associated with the directed reading activity (DRA) and reading skills instruction (RSI). Subjects were 28 fourth grade teachers selected randomly from five school districts located in urban, suburban, and rural communities. The teaching experience of the sample ranged from 6 to 39 years. Each participant used a basal program and taught a self-contained class of 24 to 33 pupils grouped heterogeneously. One teacher used an individualized approach; all others grouped pupils according to reading ability. Classroom observations were completed by seven advanced graduate students who were trained in using two researcher-designed observation instruments. Each teacher was informed of the schedule and was observed for approximately one hour on each of three consecutive days for a total of 84 observations. In total, 4,072 minutes were observed and 6,068 instruction events were identified. The data were organized to display percentages of time devoted to DRAs, RSI, and their instructional components, and to identify percentages of instructional events within specific categories of teaching behaviors related to the two procedures. In general, observations revealed that text-based reading instruction followed DRA procedures found in basal manuals, and RSI followed a format of handing out worksheets when the manual directed teachers to do so. Overall, teachers devoted more time to RSI (51.2%); however, they displayed more instructional events in DRAs. During DRAs, the postreading phase accounted for considerably more time than the prereading or reading phases. Considerable DRA time was consumed by activity unrelated to the lesson. Most teacher behavior during the DRAs was related to questioning, telling, and defining, with little evidence of instruction characterized by meaningful processing. RSI time was devoted to practice; teachers provided very few explanations about skills and infrequently modeled or demonstrated skills for students.

Matz, Karl A. (1989, Fall). Rehearsed oral reading: Evaluation and classroom practice. *Kentucky Reading Journal, 11,* 12-14.

Conducts an informal interview of 21 teachers relative to their beliefs and practices regarding unrehearsed oral reading. Twenty of the teachers claimed to use the practice frequently; 14 reported choosing only from children who volunteered, 5 called on children randomly, while 1 teacher used round-robin reading. In addition, the author presents information on the differences in the rehearsed and unrehearsed oral reading of three children and notes that useful information can be obtained from the comparison of the two.

Hollingsworth, Paul M.; Reutzel, D. Ray; & Weeks, Elaine. (1990, Spring). Whole language practices in first grade reading instruction. *Reading Research and Instruction, 29,* 14-26.

Applies classroom observation techniques to determine the extent to which the tenets of whole language theory had become a part of the reading instruction offered by first-grade teachers. Subjects were 16 first grade teachers and their classrooms in six Utah school districts. Each teacher was informed of the observation schedule and was observed for five successive reading lessons. Teacher behaviors were identified, described, and timed using an observational instrument developed by the researchers. In addition to observations, interviews were conducted to allow teachers to explain other reading practices and beliefs that were not observed during the five lessons. In total, 5,897 minutes of reading instruction were observed. Frequency tables were constructed to help analyze the instructional components, and summarized descriptions of classroom environments, pupil behaviors, and evaluation techniques were developed. Teachers spent less than 10% of reading instruction time engaged in practices which could be considered in agreement with whole language theory. Conventional reading practices which related to the use of basal readers, workbooks, and worksheets accounted for nearly 70% of the reading time. The remainder of the reading instructional time was spent in transition and noninstruction. Evaluation techniques were not congruent with whole language theory; rather, there was reliance on tests and skill management systems to assess pupils' progress.

Scott, Diana, & Barker, Jeanne. (1990, Spring). The status of computer technology in Florida middle schools in the areas of reading and language arts. *Journal of Reading Education, 15,* 35-39.

Reports a statewide survey to determine middle school computer usage in reading and language arts. Survey questions assessed (1) the number of schools incorporating software in reading and language arts programs, (2) where computer instruction was occurring, (3) who provided the instruction, (4) where the funding monies were coming from, and (5) what selection and evaluation processes were used when purchasing hardware and instructional software. An overall response rate of 40% was achieved, with schools in 40 districts responding. Most districts reported no budget line for computer hardware and software. Computers were generally housed in labs, with 25 to 35 computers per school. Reading and language arts software were being used in computer classes, in language arts and reading, in creative writing, in compensatory education, and in grammar classes. Pupils of all levels of ability were using the computer. Classroom teachers were the primary providers of instruction in public schools, while computer specialists were the dominant providers in private schools. Drill and practice software was used most frequently. Many different school personnel were responsible for evaluating and purchasing software, and most districts reported using software evaluation forms. Fewer than one-fourth of the schools surveyed required computer inservice training for school staff.

Pressley, Michael; Johnson, Carla J.; Symons, Sonya; McGoldrick, Jacqueline A.; & Kurita, Janice A. (1989, September). Strategies that improve children's memory and comprehension of text. *Elementary School Journal, 90,* 3-32.

Summarizes strategies in reading comprehension supported by research evidence. Reviewed is research on summarization, representational- and mnemonic-imagery, story grammar, question generation, question answering, and prior knowledge activation strategies. Also included are recommendations for instruction with particular stress on direct explanation approaches.

Roberts, Val. (1989, May). Parental involvement in middle schools: A case study. *Research in Education, 41*, 27-37.

Undertakes a case study to examine how schools involve parents in the education of their children in middle schools and to explore the way this involvement is seen by both parents and teachers. Parents and teachers associated with three middle schools were included in this study. Data were collected by using an interview guide on 42 teachers and 39 parents. The three schools differed in size (n = 180, 363, and 450+), and were located in diverse areas. Descriptions of parental activities in schools and the subjective perspectives of both teachers and parents were developed by manual transcription from tape to categorized card index. In general, parental involvement entailed attending preliminary school meetings planned for the parents of pupils entering the middle school for the first time and open school times in the evenings, referred to as consultation evenings. PTAs were not found to be active; however, one school instituted a parents' working party that completed tasks for teachers. The interview data yielded recurring themes regarding the expectations of teachers and parents. Teachers' expectations were discussed in relation to issues of collaboration and control. Parents' expectations/perceptions were detailed in relation to communication with teachers.

Olson, Arthur V., & Knutson, Richard Elmer. (1990, Spring). Canadian literature: Teaching a culture and heritage? *Reflections on Canadian Literacy, 8*, 14-17.

Discusses research related to the use of Canadian literature in Canadian secondary schools, including research detailing the Canadian literature content represented in provincial curriculum guides and research assessing the knowledge of Canadian literature displayed by students preparing to be teachers. The authors concluded that the current status is influenced by the lack of a widely accepted philosophy of English education, the absence of a Canadian-based philosophy of curriculum development, and the frequent publication of Canadian research in non-Canadian journals.

Sheridan, E. Marcia. (1990, April-June). Primary Chinese language instruction in the People's Republic of China. *Reading Psychology, 11*, 141-150.

Gives a brief history of the development of the Chinese language and the changes the writing system has undergone over time, and then examines current methods and materials for teaching beginning reading using a standard dialect of Chinese. The pinyin alphabet became the initial reading system during the reforms occurring under the Communist regime in the 1950s. The alphabet is taught at the beginning of the first year of school. The Chinese Phonetic Alphabet is then used to teach the Mandarin or standard pronunciation of new characters as they are learned. During the equivalent of the first-grade year, children learn about 19 new characters each week, with more than half of the 3,000 characters learned in the six years of elementary school taught during the first two grades. Thus first graders learn the pinyin alphabet, 630 Chinese characters, their Mandarin pronunciation, and possibly the local dialect equivalent. Generally, characters and words are taught in meaningful context. Words are introduced with a picture representation, and the new letter's shape is incorporated into the picture. Pictures closely follow the text and are used to help children develop oral language skills and to aid in retelling. However, there is also excessive memorization and little silent reading.

V-3 Early reading

Tobin, Aileen W., & Pikulski, John J. (1988). A longitudinal study of the reading achievement of early and nonearly readers through sixth grade. In John E.

Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 49-58). Chicago, IL: National Reading Conference.

Follows the reading achievement differences between early readers and nonearly readers from kindergarten to the end of sixth grade. Initial reading achievement was measured using the GMRT and an informal vocabulary test resulting in a matched sample of 30 early readers and 30 nonearly readers. All subjects were given the PPVT to adjust for IQ and tested throughout the study to control for intellectual discrepancies. Students were retested at the end of first and second grades, at the beginning of fourth grade, and the end of sixth grade using the GMRT and an adjusted form of a published IRI. Attrition rates resulted in a final analysis of 23 early readers and 25 nonearly readers. Results support the conclusion that children who learn to read early remain superior in reading achievement as compared with a matched sample of nonearly reading peers. Early readers had significantly higher reading achievement scores at the end of each data collection point, regardless of the measure. The achievement differences were most dramatic at the end of first grade.

GRACE, CATHY. (1989, Spring/Summer). What research indicates about reading instruction in kindergarten. *Mississippi Reading Journal*, *2*, 17-27.

Presents major recommendations relating to literacy instruction in kindergarten emanating from *Becoming a Nation of Readers* and lists research studies supporting the efficacy of these recommendations. In addition, position statements of professional organizations regarding appropriate literacy instruction for kindergarten children were reviewed.

RICE, MABEL L.; HUSTON, ALETHA C.; TRUGLIO, ROSEMARIE; & WRIGHT, JOHN. (1990, May). Words from "Sesame Street": Learning vocabulary while viewing. *Developmental Psychology*, *26*, 421-428.

Reports a longitudinal investigation of preschool children's viewing of "Sesame Street" to examine whether young children learn new words when viewing programs under normal home viewing conditions. Every six months for two years, one-week diaries of television viewing were collected from two cohorts of children; 160 were followed from ages 3 to 5, and 160 were followed from ages 5 to 7. Diaries contain reports of viewing by all family members in 15-minute intervals from 6:00 a.m. to 2:00 p.m. each day. Tests of vocabulary competency (PPVT) were given at the beginning and the end of the two years. Initial and concluding parent interviews also collected demographic data and data about television viewing and encouragement. Cross-age multiple regressions, in conjunction with within-age regressions, suggested a positive effect of "Sesame Street" viewing from ages 3 to 5, with declining benefits from 5 to 7. The researchers conclude that content and presentation formats of "Sesame Street" are well suited to preschoolers' vocabulary development, and these findings are independent of parent education, family size, gender, and parental attitudes.

DOWHOWER, SARAH L. (1989, Fall). Curriculum dilemma: The early reader. "Mom, I never READ in school." *Reading Horizons*, *30*, 42-51.

Analyzes videotapes of the instruction of two kindergarten teachers secured during the first month of school for occurrences of literacy instruction. Data collection began the first day of school and continued once a week for the next three weeks. Four half-day sessions were taped for each teacher, and this provided videos of eight, two-and-one-half-hour periods. Instructional activities, called events, were identified and counted for each of the eight sessions. Specific literacy events (defined as activities involving reading, writing, or listening to text) were identified as a subset of the total events counted. Literacy events were divided into those involving single words and those involving sentences or continuous text. The analysis revealed that each teacher provided 18 literacy events during the four sessions, averaging 4.5 literacy events per half-day session. A majority of these events, 61%, involved working with children's names or single words; 39% of all literacy events were at the sentence level or above. As for exposure to continuous texts, teacher read-alouds were the most frequent activity. The only pupil writing activities were for children to write their names. For each teacher, the literacy events averaged approximately one-fifth of the children's classroom activities over the four days. There was no evidence of grouping for reading ability; all instruction was done in large groups and followed the curriculum content required by the district. Teachers who were interviewed revealed that on the first day of school they had no information as to pupils' reading abilities and could not identify the reading levels of children entering their classes that fall. Individual testing during the first month of school involved traditional readiness surveys. At the end of the first month of school, all children in both classes were administered the Test of Writing Vocabulary. Ten percent of the children could write and spell correctly 15 or more words; another 15% could spell 10 to 14 words.

V-4 Readiness

REUTZEL, D. RAY; ODA, LINDA K.; & MOORE, BLAINE H. (1989, September). Developing print awareness: The effect of three instructional approaches on kindergartners' print awareness, reading readiness, and word reading. *Journal of Reading Behavior, 21*, 197-217.

Examines the effectiveness of three instructional approaches for developing kindergartners' concept of print and print awareness. Three intact kindergarten classrooms comprised the sample and formed the three treatment groups. One classroom (n=50) served as the control group and continued the district adopted reading readiness program. The second classroom (n=52) implemented an immersion in print environment and curriculum which stressed extensive reading, language, and writing activities. The third classroom (n=30) also implemented a print rich environment, in addition to teacher directed instruction of concepts of print. The three treatments were randomly assigned and were controlled regarding teacher variables and training. Instructional procedures and environmental changes were implemented over an 80-day school day period from December to May. Performance gains were measured by the Concepts About Print Test and the Written Language Awareness Test. The reading readiness subsection of CAT and the Test for Identifying Early Readers (TIER) were employed as the posttest measures of reading and reading readiness. Results indicated that both groups that experienced an immersion in print increased in print awareness, traditional reading readiness, and word reading acquisition, as compared with traditional readiness programs.

GORE, DOLORES A.; MORRISON, GARY N.; MAAS, MARTHA L., & ANDERSON, ELIZABETH A. (1989). A study of teaching reading skills to the young child using microcomputer assisted instruction. *Journal of Educational Computing Research, 5*(2), 179-185.

Asks whether preschool age children can be taught prereading skills using CAI and whether this age group can learn computer literacy skills without instruction and drill. Subjects included six boys and eight girls ranging in age from four years, nine months to five years, five months enrolled in a preschool program serving low income families. Almost 80% of the children were from single parent households, and half were children of university students. Alternate forms of the Metropolitan Readiness Test were administered as pre- and posttest measures. Children were brought to a university-based computer lab twice a week for 60 minute sessions over a nine-month period. Children worked in pairs at computers and six adults observed and assisted. Commercially produced software was used to teach readiness skills. For initial sessions, children were guided in the steps of booting the computer. In the remaining sessions, children were given the software and proceeded independently unless assistance was requested. Results of a one-way ANOVA indicated that children could be taught specific reading skills using CAI. Observational results indicated that the children were able to acquire the computer literacy skills without direct instruction and drill.

HARRIS, SHARON. (1986, December). Evaluation of a curriculum to support literacy growth in young children. *Early Childhood Research Quarterly, 1*, 333-348.

Attempts to identify experiences in a preschool curriculum that support growth in literacy and also to gather data on the literacy growth of young children. Subjects included eight Head Start and eight tuition paying children enrolled in a demonstration lab school classroom at a large university. Children's ages ranged from 39 months to 58 months; teaching staff included a head teacher, an assistant teacher, and a graduate student. Three boys and three girls were taped daily over a 4-1/2 month period as they engaged in literacy events during free-choice time. The primary data source consisted of 32 hours of videotaped literacy events, three literacy tasks administered at the beginning and end of the study, a parent questionnaire, researcher field notes, writing samples from the children, and a daily log maintained by the head teacher. The three literacy tasks consisted of recognizing the first names of each child, assessing letter-name knowledge, and assessing bookhandling. Analysis of the data revealed that all six children grew in their interest in and knowledge of written language. Implications for curriculum development are presented.

MCKAY, MARILYN J. (1988). Extended wait-time and its effect on the listening comprehension of kindergarten students. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 225-233). Chicago, IL: National Reading Conference.

Observes whether extended teacher wait-time has a positive influence on teacher/pupil interactions and on pupil achievement in listening comprehension. Twenty elementary schools served as the sample pool from which 20 small instructional groups were selected. Each group—six kindergarten students and a reading resource teacher—was randomly assigned to an extended wait-time group (3-5 seconds) or a comparison group (under 2 seconds). Each group received three listening comprehension lessons where the teacher would read a basal story followed by five textually explicit and five textually implicit questions. All lessons were taped, transcribed, and timed. Subject responses were categorized as task versus nontask related, and then classified as correct, partially correct, incorrect, comments, or repetition. Means indicate that verbal interactions are positively affected across time by extending wait-time from 3-5 seconds as illustrated by longer pupil responses and more observed pupil interaction. An increase in the number of correct responses for both explicit and implicit questions was found for the extended wait-time group.

RIDING, R.J., & SIMMONS, L. (1989). Instruction in prereading skills in preschool children and its effect on the subsequent rate of reading attainment. *Educational Psychology, 9*(3), 247-252.

Compares the effectiveness of three preschool conditions and their effect on subsequent reading performance for 26 British children of comparable age and socioeconomic background. Conditions were: (1) nursery education with structured prereading instruction on discrimination and letter shapes delivered by the computer, (2) normal nursery activities, and (3) no formal nursery education. Instruction followed stated school procedures and was the same for all entrants. An ANOVA of treatment by sex with repeated measures on time in school showed a significant interaction on the number of reading books started or completed. There also was a significant main effect for treatment and time in school. Subjects in Group 1 made more initial gains and maintained the gains over the time studied. Computer-presented activities using a structured approach to reading readiness seemed to be more effective for subsequent reading attainment than were the other approaches.

Ainsa, Patricia. (1989, Fall). Improving family literacy through technology in early childhood. *Reading Improvement, 26,* 266-269.

Reports the results of a literacy intervention program for 282 prekindergartners and their parents. Children in nine existing prekindergarten classes were randomly assigned to three treatment groups at one control and two experimental sites. All prekindergartners were administered the PRE-Language Assessment Scale as a pretest and the Bilingual Syntax Measure as a posttest. Parents attended two parent workshops and received on-site training in computer use, basic literacy training, and methods and materials for working with young children. Parent English and computer proficiency were evaluated using a criterion referenced test and self-reports. All parent participants reported significant improvement in their knowledge of computers and literacy, and significant differences in English improvement were found for both prekindergarten experimental groups.

Warren, Janet S.; Prater, Norma Jean; & Griswold, Dianne L. (1990, Spring). Parental practices of reading aloud to preschool children. *Reading Improvement, 27,* 41-45.

Examines nationwide parental practices of reading aloud to preschool children. The stratified random sampling of 900 Kinder Care Centers yielded 50 centers from 25 states used for the survey. Parents of 3-, 4-, and 5-year-olds enrolled in the centers were asked to respond to questions about the quantity and quality of read aloud experiences provided for their children at home. An 80% return rate on the questionnaire yielded a representation of 22 states with 444 forms to be tabulated and analyzed. Findings indicated that a large percentage of parents had read aloud time for at least 15 minutes several times weekly, even though, in many cases, both parents had full time employment. In most cases, mothers did the reading, although many fathers shared in the activity. Reading aloud occurred most often at bedtime, with verbal interactions related to the reading. Findings showed tradebooks used for reading aloud often were purchased at grocery stores and were about children's favorite cartoon characters, movie characters, or familiar folk and fairy tales. Many children were unfamiliar with characters from well known children's books. Results are discussed in terms of implications for Kinder Care Centers' preschool programs.

Hirst, Kath, & Hannon, Peter. (1990, Spring). An evaluation of a preschool home-teaching project. *Educational Research, 32,* 33-39.

Reports a qualitative analysis of a preschool home-teaching project in an innercity area in the United Kingdom. Areas of interest analyzed were the operation of the project, what the participants considered the advantages and disadvantages of the project, how it felt to participate in the program, how those involved were most affected by the program, and the project's most significant features. Data sources were participant observation, written documentation, interviews with the Adviser for Early Childhood Education, the parents, the staff, and structured group discussion with the home teachers. Interviews with the home teachers suggested that they saw their roles as creating a facilitating atmosphere and environment in which significant learning could take place. Reported benefits of the program included the gaining of confidence and positive attitudes toward communicating and learning by the children. Children's language skills increased considerably, as did their interest in books and in constructive play. Teachers observed that parents became more aware of their children's learning and development. Parents' attitudes toward teachers and school seemed to improve.

Robson, Cliff, & Whitley, Steve. (1989, April). Sharing stories: Parents' involvement in reading with inner-city nursery children. *Reading, 23,* 23-27.

Carries out and reports on a one-year project conducted with innercity British children in which parents were encouraged to read regularly to prereception class children. The parents of 44 children in one nursery class were asked to engage in a project to borrow two picture books a week to read to their children at home. Twenty children were selected from the experimental school and matched for age with 20 children from two control schools. All pupils were tested at the end of the summer session, with Part 1 of the Infant Reading Test. No significant difference was found in level of achievement.

V-5 Teaching reading – primary grades

Johnston, Rhona S., & Thompson, G. Brian. (1989, August). Is dependence on phonological information in children's reading a product of instructional approach? *Journal of Experimental Child Psychology, 48,* 131-145.

Reports two experiments designed to compare the performance of British and New Zealand (NZ) children on a pseudohomophone task in order to see whether different teaching approaches have an impact on the extent to which phonological information is used. Experiment 1 included 44 British children, ranging in age from 7 years, 10 months to 8 years, 7 months and 70 NZ children the same ages. All British children had received systematic instruction in phonics from their first year of school; NZ pupils had not received phonics instruction. The Burt Word Reading Test and the WISC-R vocabulary subtest were administered to both groups. The task consisted of 20 pseudohomophones (sound like real words, but are spelled incorrectly), 20 nonwords, and 40 filler words. Subjects were told to sort words into boxes labeled real and made-up. Responses to pseudohomophones and nonwords were expressed as percentages correct and were analyzed by a three-way ANCOVA with repeated measures. Findings showed that the two groups rejected nonwords equally well; British children were less accurate at rejecting pseudohomophonic nonwords but were better at accepting words than were the NZ children.

Reutzel, D. Ray, & Cooter, Robert B. (1990, May/June). Whole language: Comparative effects on first-grade reading achievement. *Journal of Educational Research, 83,* 252-257.

Compares whole language classrooms with basal reader classrooms on a standardized reading achievement measure at the conclusion of first grade. Four first grade classrooms located in four different schools were included. Two classrooms applied whole language strategies for teaching beginning reading, and two used a traditional basal approach. At the outset of the study at the beginning of the academic year, pupils in the whole language classrooms (N=53) and the basal reader classrooms (N=38) were found to have equal reading abilities on a standardized measure. In May, the GMRT was administered to all subjects. ANCOVA procedures revealed significant effects favoring the whole language group on both total reading scores and subtest scores. Additional analysis showed moderate differences between the two groups. Mean performance of the whole language group was .6 of a standard deviation above the basal group on the total reading score, .56 of a standard deviation above on the vocabulary subtest, and .6 of a standard deviation above the basal group on the comprehension subtest.

Holland, Kathy W., & Hall, Lee Ellis. (1989, Winter). Reading achievement in the first grade classroom: A comparison of basal and whole language approaches. *Reading Improvement, 26,* 323-329.

Conducts a comparative analysis of the effects of basal and whole language approaches on the reading achievement of first grade pupils. Two intact first grade classrooms from one school served as the subjects for the study. The final analysis included a total of 30 pupils from the two classrooms. No significant differences were noted between the two groups on the pretest scores of the kindergarten California Achievement Test. Posttest comparisons were made using the reading scores from the Georgia Criterion Referenced Test administered in the spring of the first grade year. There were no statistically significant differences between the two groups.

BRIDGE, MURIEL. (1989). Learning to read: A study undertaken by the Leicestershire Literacy Support Service 1986-7. In Morag Hunter-Carsch (Ed.), *The art of reading* (pp. 124-130). Oxford, England: Basil Blackwell.

Reports on data collected from 87 primary school pupils in seven schools in Great Britain. Compared was a traditional method with a story approach to reading. Data were collected from logs of school visits, teacher interviews, and pupils' assessment interviews. In September and again in May, attitude, book awareness, and reading behaviors were assessed and the Burt GWR Test was administered. No significant differences were observed between the two groups on the Burt or for reading behavior gains. However, qualitative differences were noted. In the story approach schools, children read and reread more books, more often. Additionally, the story approach appeared to engender greater teacher innovation and development of insight into the reading process.

BODE, BARBARA A. (1989, December). Dialogue journal writing as an approach to beginning literacy instruction. *Florida Reading Quarterly, 26*, 9-12.

Explores the effects of dialogue journal writing on the reading and writing achievement of first grade pupils. The experimental program was completed by 204 first graders drawn from three schools in a central Florida school district. The schools were matched on achievement levels, SES, and language arts curricula. Two schools were designated experimental; one school served as a control. Children in one experimental school wrote in their dialogue journals at home with their parents; children in the other experimental school wrote dialogue journals three times per week with their teachers. Control school children received the traditional language arts curricula. The treatment lasted from November through March. Reading achievement was assessed on the SAT, yielding scores for word reading, comprehension, word study skills, spelling, vocabulary, and listening comprehension. Writing performance was assessed on a writing sample scored holistically and additionally assessed sentence formation, word usage, content development, and writing mechanics. Dictated spelling also was measured on the Schonell Graded Word Test. Results of a MANOVA Omnibus test were significant, and post hoc comparisons showed that the parent and teacher groups, both singly and together, were significantly higher than the control group. A step-down analysis showed that holistic writing, reading comprehension, and word study skills accounted for most of the variance between groups. A Scheffe Test, conducted for variables identified as significant, revealed that the parent group was most successful. The teacher group did not score significantly higher than the parent group on any dependent variable; the control group did not score higher than either treatment group on any variable.

REUTZEL, D. RAY, & FAWSON, PARKER C. (1989, December). Using a literature webbing strategy lesson with predictable books. *The Reading Teacher, 43*, 208-215.

Compares the effects of a literature webbing strategy lesson (LWSL) with a directed listening/reading thinking activity (DL/RTA) with first grade readers using a predictable big book. The subjects were 24 first grade children in one classroom. Twelve pairs of subjects were matched according to scores on both the comprehension subtest of the GMRT, Level 1, and the SORT. One pupil from each pair was randomly assigned to a treatment group. Both instructional treatments were designed to prepare subjects to successfully and independently read one predictable book. Instructional time was held constant. Effects were assessed by completing a miscue analysis of each child's oral reading and by scoring pupils' responses to five comprehension questions (two literal, three inferential and evaluation). Two separate ANCOVAs were completed to assess treatment effects. Using SORT scores as the covariate, the first analysis revealed a significant difference between the two groups on miscues. Readers in the LWSL group had fewer total miscues and greater semantic and syntactic acceptability of miscues than pupils in the DL/RTA group. The test of treatment effects on comprehension, an ANCOVA using the GMRT scores as the covariate, revealed that the LWSL group significantly outperformed the DR/TRA group.

Cowden, Diane. (1989, Winter). Parent, teacher, and the emergent writer: A parent participation program. *Reading-Canada-Lecture*, *7*, 235-245.

Documents the development, implementation, and evaluation of a year-long parent participation program carried out in a Grade 1 classroom in Canada. Twenty-seven children and their parents were included in the project, with the writings of 10 pupils selected for in-depth analysis. Program components included three parent workshops; three child-produced newsletters, with each child contributing one article; puppet journals; information bulletin boards; and a parent library. Questionnaires, interviews, and document analysis were used to determine parent reaction to the program and to see if parents accepted and acted on the information presented to them by the teacher. Parents felt the program was successful. Most parents took advantage of the program and the information they received; they gave a high rating to the meetings, newsletters, journal writings, and teacher availability. By study end, parents had accepted and internalized considerable information on developmental writing and were applying that information as they helped their children.

Sexton, C. Waynel. (1989, May/June). Effectiveness of the DISTAR Reading I program in developing first graders' language skills. *Journal of Educational Research*, *82*, 289-293.

Undertakes a study to determine if the DISTAR program was more effective than a basal program in increasing school-based language ability. Both the DISTAR group and the control group consisted of 40 black first graders from a large metropolitan district. Reading instruction in both programs comprised approximately two hours a day. Scores on the MRT were used as pretest measures and SIT scores were collected as posttest measures. Language scores of the two groups were compared on the SIT, with scores on the MRT Language subtest used as a covariate in an ANOVA procedure. With initial language ability held constant, a significant difference favoring the experimental group was found. DISTAR was found to be equally effective for children with low and with high initial language scores on the MRT.

Wade, Suzanne E. (1990, March). Using think alouds to assess comprehension. *The Reading Teacher*, *43*, 442-451.

Presents a taxonomy of different types of comprehenders based on information collected using a think aloud procedure with children having a reading problem. Children ranged from second to ninth grade and all had been referred by a classroom teacher as having a reading difficulty. Five categories of readers were identified, and the resulting taxonomy was validated on a group of 52 children. Types of comprehenders fell into the following five categories or into a sixth or mixed category: (1) good comprehender, (2) nonrisk taker, (3) nonintegrator, (4) schema imposer, (5) storyteller, and (6) mixed. Examples of think aloud protocols of each of these types are presented and implications for instruction given.

Alfrey, Margaret A. (1990, April). Extending reading skills with infant children – testing theory by classroom research, *Reading*, *24*, 6-14.

Examines the effects of an instructional program directed at improving the higher level reading strategies of children at the top end of the Infant School. The experimental group was composed of 10 children from the author's class while the control group was composed of 10 children from a similar class. The 20 children were tested on the Gap Comprehension Test, the Edinburgh Reading Test, Stage 1, and the Schonell at the beginning of the school year and again six months later. Various meaning-focusing strategies were fostered with the experimental group including: silent reading with a purpose, reconstruction and prediction of deleted texts, language experience, and skills of modeling and sequencing of text. Postprogram results showed significant gains over preprogram results for the experimental group.

Michener, Darlene M. (1989). Reading aloud to students and written composition skills: Assessing the relationship. *English Quarterly, 21*(4), 212-223.

Synthesizes the results of two separate studies conducted with third graders from the east and west coasts of the U.S. to determine the effect of a 12-week read aloud program on written composition skills. In study one, 48 pupils from two socioeconomic levels completed pre- and posttest measures assessing (1) syntactic maturity (mean T-unit length); (2) semantic maturity (sampling every fourth word in a 100-word sample and assigning point values corresponding to the grade levels); and (3) a holistic rating of writing papers. In study two, with a culturally and socially more diverse group of children, only syntactic maturity was investigated. In addition, the investigator took ethnographic field notes during both studies. No statistically significant differences were found between pre- and posttests in the first study. Observations led the investigator to conclude that reading literature aloud did improve composition skills, especially syntactic maturity. Children of all socioeconomic levels benefited equally. Variations in teacher writing style preferences seemed to influence student written response. In study two, statistically significant differences were found in T-Unit measures between control and experimental groups. Those in the read aloud group had higher mean T-Unit scores. Field notes indicated that subjects wrote in the styles of their favorite authors and used many of the words from the read alouds in their own writings. Included are suggestions for further research.

Wise, Beth S., & Shaver, Judy C. (1989). Research to impact practitioners: Teaching concepts to at-risk children. In Bernard L. Hayes, & Kay Camperell (Eds.), *The yearbook of the American Reading Forum* (pp. 23-28). Athens, GA: American Reading Forum.

Reports a study designed to provide opportunities for language and concept development in 18 kindergarten subjects identified as high risk and placed in experimental or control groups on the basis of scores on The Boehm Test of Basic Concepts. Experimental group members received treatments in groups of three for 30 minutes each day. Instruction focused on basic concept development and on reading tradebooks aloud to children, with emphasis on development of concepts and vocabulary necessary to understand the books. Subjects were posttested with an alternate form of the Boehm at the end of the school year. Subjects in the experimental group outperformed the control subjects on the posttest.

Huinker, DeAnn M. (1989, October). Multiplication and division word problems: Improving students' understanding. *Arithmetic Teacher, 37*, 8-12.

Reports a study conducted with 26 third graders to improve their ability to solve part-whole and comparison word problems involving all mathematical operations and to write corresponding number sentences. Subjects participated 15 minutes a day for four weeks. A 21-word problem pre- and posttest was administered. Pretest to posttest gains were significant, with pupils correctly answering 90% of the problems and writing appropriate number sentences for 89% of the problems. Most improvement was made by the lower one-third of the class. Overall, most gains were made in understanding of division. Interviews suggested considerable confidence gain on the part of the subjects.

Schmitt, Maribeth C. (1988). The effects of an elaborated directed reading activity on the metacomprehension skills of third graders. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 167-181). Chicago, IL: National Reading Conference.

Determines the effects of incorporating activities that foster metacomprehension abilities into the guided reading section of basal lessons. Two intact classrooms were randomly assigned to a control group which followed the traditional guided reading procedure outlined in the basal manual, or a treatment group which provided guided reading that stressed metacomprehension behaviors. Five stories from the basal reader were used with both groups daily for two weeks. Following instruction, three measures constructed by the researcher were employed: an error detection task, a cloze passage, and a think-aloud measure. Students were interviewed and asked to complete a questionnaire examining their strategy use. On the average, pupils in the treatment group performed better than in the control group, suggesting that the metacomprehension skills of third graders can be improved through the inclusion of specific activities during guided reading.

V-6 Teaching reading – grades 4 to 8

Davis, Zephaniah T. (1988, October/November). A comparison of the effectiveness of sustained silent reading and directed reading activity on students' reading achievement. *High School Journal*, *72*, 46-48.

Compares the effectiveness of sustained silent reading with the directed reading activity. Two intact eighth-grade English classes were randomly assigned to either sustained silent reading or the directed reading activity. Treatment conditions were used 80% of the instructional time per class period, three days a week, for an entire school year. Pre- and posttest scores from the CTBS Reading subtest were used to evaluate the effectiveness of the two methods. Results were interpreted in terms of student ability levels. Significant differences in performance were found for average ability students in favor of those receiving sustained silent reading. No significant differences were found between the two methods for high achieving students. Too few low-achieving students were represented to warrant an analysis.

Pantaleo, Sylvia. (1989, Fall). The relationship of vocabulary instruction and student expression. *Reading-Canada-Lecture*, *7*, 226-234.

Applies naturalistic research methods to investigate the relations between vocabulary instruction and pupils' ability to both verbalize word meanings and use new vocabulary in personal writing. An additional focus of the study was teachers' instructional procedures. The sample included two experienced teachers who volunteered to participate and their fourth grade classes of 23 and 25 pupils from one school near Calgary. Data were collected by the researcher over a period of seven weeks using observations, audiotaping of language arts instruction, interviews of teachers and children, and individual assessments of pupils' vocabulary knowledge. Children's written products also were analyzed to determine how frequently and how appropriately the instructed vocabulary words were incorporated. Individual interviews and assessments were with pupils drawn from the three ability groups in both classrooms. The analyses revealed the following: (1) teachers directly taught vocabulary, (2) instructed vocabulary words came from a variety of sources, (3) teachers predominantly utilized limited instructional techniques during instruction, (4) teachers were the dominant source of information during the instruction, (5) teachers verbalized more concrete than abstract information during vocabulary instruction, (6) background knowledge of the pupils was used to a minimal extent prior to and during the vocabulary instruction, (7) pupils articulated a small number of conventional responses for the words the researcher assessed, (8) pupils predominantly verbalized more concrete information responses, (9) children incorporated very few of the instructed vocabulary words into their writing, and (10) the incorporated words were generally used appropriately.

Capobianco, E. Sharon. (1989, December). Thinkingalong: Making thinking public. *Rhode Island Reading Review, 7,* 61-67.

Tests whether fourth graders could learn to apply a thinkalong reading strategy and whether this learning results in increased reading comprehension and metacomprehension ability. The technique utilized the modeling of metacomprehension strategies such as predicting, self-generated questioning, use of imagery, and activating background knowledge. Forty-two pupils from two fourth-grade classrooms were matched on reading ability and randomly assigned to the thinkalong group or a DRTA group (control). Within each respective group, pupils were divided by reading ability into a high (at least one grade level above), a middle (on grade level), or a low (one year or more below) subgroup. The study lasted six weeks for three sessions a week and ranged from 30 to 90 minutes per session. The MAT VI Reading Survey Test and a metacognitive interview were used for the pre- and posttest measures. A t-test for nonindependent means on the reading achievement measure found significant differences at the .10 level favoring the thinkalong group. The middle reading group made the greatest gains, while the low readers showed the least improvement. The posttest results for the metacognitive interview indicated that the thinkalong group increased in the number of specific reading strategies they considered to be useful.

Konopak, Bonnie C.; Martin, Sarah H.; & Martin, Michael A. (1990, March). Using a writing strategy to enhance sixth-grade students' comprehension of content material. *Journal of Reading Behavior, 22,* 19-37.

Investigates the effect of a writing strategy on enhancing comprehension of a social studies topic. Subjects were 48 grade 6 pupils enrolled in two history classes at a university laboratory school. Pupils were given an 800-word passage on modern day Canada with various connected activities over a four-day period. The two classes, experimental and control, received the same speaking, listening, and reading activities, but the experimental group additionally engaged in writing tasks related to the topic. On the fourth day, children were given two posttests, one multiple choice and one essay-type. It was found that the experimental group generated significantly higher quality ideas than did the control group and produced more coherent, integrated writing samples. Experimentals significantly improved their overall writing and the quality of their ideas over the four-day period.

Tregaskes, Mark R., & Daines, Delva. (1989, Fall). Effects of metacognitive strategies on reading comprehension. *Reading Research and Instruction, 29,* 52-60.

Researches the effects of instruction in metacognitive strategies on comprehension of written social studies texts. Subjects were 152 white and Hispanic, lower middle class pupils, in six sixth-grade classrooms in a rural elementary school. Over a 12-week period, three classes served as the experimental group, receiving instruction in the use of metacognitive strategies by trained instructors; and three classes served as the control group, receiving instruction via the traditional reading and questioning method. Pupils in both the experimental and control group were given the Cloze and the Error Detection Tests, each designed as pre- and posttests of reading comprehension. Tabulated data from each set of tests were submitted to ANCOVA procedures, using the pretest as a covariate. Findings indicated that subjects who were given instruction in metacognitive strategies significantly outperformed subjects who had not received such instruction.

Taylor, Barbara M.; Frye, Barbara J.; & Gaetz, Thomas M. (1990, June). Reducing the number of reading skill activities in the elementary classroom. *Jour-*

nal of Reading Behavior, 22, 167-179.

Investigates within three studies the effectiveness of reading programs in which instruction and practice of basal skills were eliminated for students who demonstrated pretest competency in those skills. A variation of techniques was used over the three studies to establish equitable experimental and control groups. Subjects for the first two studies were average and above average fifth and sixth graders, while subjects for the third study were below average and above average second and third graders. For each study, subjects in the experimental groups were pretested in decoding and comprehension skills that would be taught through their assigned basal program. They were then excused from unneeded instruction as determined by pretest results and allowed to read books they chose. Students in control groups were not pretested and received instruction and practice on all skills suggested by their assigned basal program throughout the period of the study. ANCOVA procedures applied to posttest scores using pretest scores as covariates generally revealed no significant differences between experimental and control groups. The posttest scores for the experimental groups remained high regardless of reduced instruction.

Williams, Nancy L., & Konopak, Bonnie C. (1988). Sixth graders' use of mnemonic imagery in recalling content material. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research* (pp. 125-131). Chicago, IL: National Reading Conference.

Compares the effectiveness that two study conditions, keyword and free study, had on sixth-graders' recall of science information in instructional, delayed, and transfer situations. The keyword group ($n=25$) received instruction and practice in this mnemonic strategy, and then was tested on a recall task, tested on a recognition task, and asked to complete a questionnaire related to strategy use. Prior knowledge of the concepts involved was assessed the first day for both groups. The free study group ($n=26$) received review of traditional study techniques, practice, and the same measures. A month later pupils were given a review of the content, and an additional instructional packet for practice, and repeated the recall measures. On the average, pupils using the keyword method did better than those in the free study group on the immediate and delayed recall measures, results that held constant overtime. Pupils reported that they used the mnemonic strategy and viewed it as an effective study tool.

Schunk, Dale H., & Rice, Jo Mary. (1989, September). Learning goals and children's reading comprehension. *Journal of Reading Behavior, 21*, 279-293.

Investigates the effects of goal setting on children's self-efficacy and reading comprehension. The sample included 17 fourth graders and 16 fifth graders drawn from one elementary school of predominantly lower-middle class SES. All had reading deficits (scoring at or below the 20th percentile on the reading subtests of the SRA Achievement Series), and all were receiving remedial reading comprehension instruction. Pretesting entailed a self-efficacy test to assess subjects' perceived capabilities for correctly answering different types of main idea questions and a comprehension skill test consisting of eight passages with 20 questions. Children were assigned randomly within sex and grade level to one of three experimental conditions: process goal, product goal, and instructional control (general goal). All readers participated in a comprehension strategy instructional program on finding main ideas during 35-minute training sessions each day for 15 consecutive school days. The process group received a process goal of learning to use the strategy, the product group received a product goal of answering questions, and the control group were told to work productively. Posttesting included a self-analysis of goal perceptions that focused on what the children thought they were trying to do during instructional sessions and resulted in four scores for responses in four areas: answer the questions, finish working the papers, learn to use the steps, and become a better reader. In addition, the self-efficacy test was readministered and an alternative form of the comprehension test was given. Pupils in the process and product goal conditions judged self-efficacy significantly higher than did control pupils. Process goal subjects demonstrated significantly higher comprehension skill compared with control subjects. Process goal subjects placed significantly greater emphasis on learning the steps (or strategy) compared with product goal and control subjects, and judged becoming a better reader significantly more important than did product goal children.

V-7 Teaching reading – high school

Straw, Stanley B. (1989, Fall). Collaborative learning and reading for theme in poetry. *Reading-Canada-Lecture*, *7*, 191-200.

Investigates students' attention to the messages (themes) conveyed in poetry when reading independently and compares two approaches to teaching poetry (teacher-centered versus collaborative learning) on students' ability to read poetry for themes. Subjects were 55 twelfth-grade students enrolled in university preparation English courses in three classes. Two of the classes of 17 students each served as experimental groups (collaborative learning), while one classroom of 21 served as the control group (teacher-centered). The literature studied, class time, and the amount of assigned writing were equal for the two conditions. Classroom activities and the type of writing differed. The collaborative classrooms worked in small groups with no direct teacher intervention or instruction in content or specific themes. The students' writing was exploratory, ungraded journal writing. Teacher-directed classrooms involved teacher-led discussions with a specific emphasis on the explication of themes. Writing activities were evaluated by the teacher. Pre- and posttesting involved writing one essay in response to one poem. Responses were evaluated by two independent judges who rated the quality of the essay and assigned it a general impression score. To assess whether students independently read poetry for theme, the groups were collapsed and a frequency distribution of the pretest data (before any instruction) was calculated. Scores were divided into three equal bands: low, middle, and high. Only 5.5% of the students scored in the high band, suggesting that few students evidenced sensitivity to theme in their independent reading/response to poetry; 58% scored in the low category, indicating that they did not read the poem for theme. A substantial number of students, 80%, scored below the median score on the pretest, whereas only 12.8% scored above it. ANCOVA analysis revealed a significant difference between the groups in favor of the collaborative group. Significant pre/post differences were observed only for the collaborative group.

Padak, Nancy D., & Padak, Gary M. (1989, Fall). Learning new ways of learning: Student adjustment to instructional change. *Journal of Reading Education*, *15*(1), 33-43.

Explores teacher and student perceptions and reactions in response to lessons offering students a new, unfamiliar approach to reading instruction, the directed reading-thinking activity (DRTA). The class studied was an Upward Bound English class, designed to provide supplementary reading and writing experiences for participants. The study was conducted for three months and included 19 high school freshmen and sophomores who met for one hour Saturday mornings. During that time, students and teacher read and discussed seven fiction selections using the DRTA procedure. After each lesson, teacher and students recorded their perceptions about the selection and the lesson in individual learning logs. To prepare the data for analysis, log entries were divided into segments that expressed single thoughts. Descriptive categories that accounted for the written comments of the teacher and the students were established. Categories were analyzed to explore possible changes in participants and their perceptions over time. Perceptions of lesson effectiveness did not change over the course of the study. Students' favorable comments about the DRTA procedure corroborated the teacher's view that they benefited from the lessons. The teacher also noted that students' predictions and use of prior knowledge became more sophisticated over the course of the study and their comments about the stories became more evaluative and judgmental.

ARMSTRONG, DIANE; PATBERG, JUDYTHE P.; & DEWITZ, PETER. (1989). Using reading guides to improve comprehension in literature classes. *English Quarterly, 21*(4), 233-246.

Studies the effects of reading guides on students' comprehension of narrative material and explores the transfer of strategies learned through the use of the guides to new material. Three eleventh grade American literature classes, all taught by the same teacher and equivalent in reading achievement, were randomly assigned to one of three treatments. Group 1 received nonhierarchical reading guides that followed the organization of the text; Group 2 received hierarchical reading guides that encouraged hierarchical thinking; and Group 3 (the control group) did not receive reading guides. Data were collected for high ability and low ability readers in each treatment group; a total of 69 students were included in the analyses. Treatments were administered every other instructional day over a period of seven weeks. Researcher-designed pre- and poststudy measures of comprehension consisted of 27 questions assessing subjects' understanding of the selections. Subjects also were given daily comprehension tests on assigned readings. ANCOVA procedures, using the pretest as the covariate, were used to analyze the data. Results indicated that students who used reading guides evidenced higher comprehension test scores and greater transfer than students who did not use reading guides. There were no differential effects for reading ability and type of reading guide.

TARLETON, ANNE, & TARRY-STEVENS, PATRICIA. (1990, Winter). Reading aloud to secondary students: Research and practice that may benefit at-risk students. *New Mexico Journal of Reading, 10*, 5-8.

Compares the effectiveness of three instructional approaches: (1) reading aloud to students, (2) student silent reading, and (3) student silent reading with accompanying study guide. Subjects were ninth, tenth, and eleventh grade students enrolled in three Chapter 1 classrooms. All students scored below the 25th percentile on the GMRT. Each group of students was exposed to each of the approaches. Subjects read short stories and answered the accompanying comprehension and vocabulary questions. Groups of students who were read to showed the highest average scores on all three stories used. Scores for those receiving study guides were higher than for those just reading the passages silently and answering questions.

LITCHFIELD, MARGARET. (1989). A comparison of three community reading projects. In Morag Hunter-Carsch (Ed.), *The art of reading* (pp. 197-209). Oxford, England: Basil Blackwell.

Cites results of three different projects undertaken with 42 students, ages 11 to 16, in a coeducational British secondary school. The three projects were paired reading, a parent/volunteer helper scheme, and cross-age tutoring using fourth and fifth year volunteer students. Subjects were poor readers who were involved in the projects in addition to receiving help in school. Questionnaires were used to obtain information on attitudes and affective responses to reading. All three groups responded more positively to the question "Do you like reading?" at the end of the three projects than they had at the beginning. All three groups demonstrated independent reading activities and all showed a decrease in responding that reading was hard. In general, attitudes were more positive at the end of the projects than at the start. The percentages of students whose reading gains on a standardized test were greater than the eight months difference between the initial and final testing ranged from 11% in the paired reading project to 36% in the parent/volunteer group.

Memory, David M. (1990, March). Teaching technical vocabulary: Before, during, or after the reading assignment. *Journal of Reading Behavior, 22,* 39-53.

Examines the relative effectiveness of teaching technical terms before, during, or after the content reading assignment. Units of analysis were 36 ninth-grade biology classes, 12 twelfth-grade government classes, and 12 twelfth-grade economics classes from three high schools in a medium-sized Midwestern county. Each unit was assigned randomly by subject area to one of three treatments: (1) vocabulary instruction before reading, (2) glossary available during reading, or (3) vocabulary instruction after reading. Sets of 11 terms and their definitions were selected from textbook chapters to be introduced to each class. The instructor in each class (while teaching content related to the chapter as usual) taught the terms using materials and procedures devised by the investigator. Materials for the before and after groups included an overhead projector slide showing each term, its definition, and a sentence using the term. The during group received each term on paper. Learning was assessed by having students write definitions for the 11 terms, with each definition being awarded score point values according to specific meaning elements found within it. Results of a series of ANOVA procedures applied to z scores of posttest means for the 60 classes within the three treatment groups revealed no significant differences attributable to time of instruction. There were no grade effects and no strong teacher effects apparent from specific analyses.

V-8 Teaching reading – college and adult

Ruddell, Robert B., & Boyle, Owen F. (1989, Fall). A study of cognitive mapping as a means to improve summarization and comprehension of expository text. *Reading Research and Instruction, 29,* 12-22.

Investigates the effects of cognitive mapping training with college freshmen on their written summarization skills and comprehension of expository text. Fifty-one university freshmen participated in three alternative treatment conditions: mapping applied to students' course materials in sociology, mapping applied to a variety of training materials, and a control, nonmapping group. The mapping treatment consisted of the development of cognitive maps which graphically illustrated the interrelationships of ideas in expository articles. Training in mapping procedures included three hours of direct instruction and six weeks of practice in mapping for homework. The control group was taught the organizational strategy of constructing topic outlines during 3 hours of direct instruction and was assigned related homework. Treatment effects were assessed on pre- and poststudy administrations of the Organizational Patterns Test (OPT), a test developed for this study. The OPT contained long passages of three different organizational patterns: numeration, thesis-proof, and problem-solution. Students were asked to write summarizing essays discussing the main ideas and supporting details in each passage. In the poststudy testing, students in the mapping treatment groups were given 10 minutes to create cognitive maps of the articles before writing; control group students were given 10 minutes to prepare for writing using procedures of their choice. Essays were scored holistically, and pre- and poststudy products were analyzed and compared. Results indicated that the mapping treatment groups: (1) scored significantly higher on holistic scores based on written summarizations of thesis-proof and problem-solution articles; (2) identified more details used to support main ideas than did nonmapping students; and (3) used significantly more cohesive ties in their writing and wrote longer and better organized summarizations.

Hynd, Cynthia R.; Simpson, Michelle L.; & Chase, Nancy D. (1990, Winter). Studying narrative test: The effects of annotating vs. journal writing on test performance. *Reading Research and Instruction, 29,* 44-54.

Assesses the effects of training subjects in annotating versus journal writing as strategies for studying narrative. Forty-six unmotivated university freshmen from four classes taking a study strategy course participated in the study. Prior to training, subjects read a lengthy narrative and their learning was assessed on a test containing multiple-choice and essay items. Training was implemented by two teachers who used scripts to teach annotation to one class and journal writing to another class. Following three weeks of training, the students were asked to read a second lengthy narrative while making annotations or journal entries according to the instruction they had received. Study reading was followed by a second test containing multiple-choice and essay items. Data analysis included an examination of the quality of annotations and journal writing. In general, annotations were few in number, with most being of literal rather than a higher level nature. Journal entries more often centered around facts students remembered rather than strategies used for reading. Scores assigned to multiple-choice items and essay idea units were submitted to ANCOVA procedures with pretest data serving as a covariate. Findings indicated the annotation group significantly outperformed the journal writing group on the multiple choice, but not the essay section of the posttest. A positive coefficient of correlation was noted between the making of inferential notations and the answering of inferential multiple-choice items on the posttest. A negative coefficient was found between subjects' annotation scores and number of generalizations made in the posttest essay.

Pressley, Michael; Tanenbaum, Robbi; McDaniel, Mark A.; & Wood, Eileen. (1990, January). What happens when university students try to answer prequestions that accompany textbook material? *Contemporary Educational Psychology, 15,* 27-35.

Assesses the effects of answering prequestions on university students' learning from text. Sixty students enrolled in an introductory psychology course were randomly assigned to one of three study conditions: prequestions-answered, prequestions-read, and a control group. All subjects read a 30-page chapter and completed a short answer posttest. The three groups differed in activities completed before their reading of the chapter. Subjects in the prequestions-answered condition responded to 23 questions regarding content covered in the assigned chapter prior to their silent reading and were required to justify their answers. Subjects in the prequestions-read condition were presented with 23 prereading questions which they were required to read but not answer. Control subjects proceeded immediately to the assigned text. The researcher-designed posttest consisted of 46 questions based on material in the chapter with half of the questions based on the prequestions. The prequestions-answered group significantly outperformed control subjects on recall of material that was prequestioned, regardless of whether the prequestion had been answered correctly before reading. There were no prequestions-read versus control differences on questions relevant to prequestioned content, and no experimental effects on questions over material that was not prequestioned.

Simpson, Michele L.; Stahl, Norman A.; & Hayes, Christopher G. (1989, October). PORPE: A research validation. *Journal of Reading, 33,* 22-28.

Reports two studies conducted with college students to demonstrate that PORPE, an integrated study strategy system, has advantages for long term learning and student independence. Questions addressed were the effects of PORPE on immediate and delayed multiple-choice exams; on immediate and delayed essay exams; and on holistic assessment of content, organization, and cohesion of essays. Both studies involved college freshmen enrolled in state-mandated developmental studies programs. Study I subjects were 65 specially admitted students. Two classes were randomly assigned to PORPE and two received the control treatment. Over a three-week period, experimental subjects were guided through the PORPE treatment. Independent study occurred after training each week. Testing occurred on the fourth day of each week, and two weeks later for a delayed assessment. PORPE students scored significantly higher on all assessments, multiple-choice and essay, than controls on both immediate and delayed testing. A second study compared PORPE with POARE (Predict, Organize, Answer, Rehearse, and Evaluate). Again, subjects were students from four intact university classes. PORPE students did not perform significantly better on immediate multiple-choice exams but did better on delayed multiple-choice exams. They also scored better on immediate and delayed essays.

King, Alison. (1989, October). Effects of self-questioning training on college students' comprehension of lectures. *Contemporary Educational Psychology, 14,* 366-381.

Examines the effectiveness of four learning strategies on 32 college students' comprehension of lectures and on their feelings of control over their success in learning. Subjects, graduate students and undergraduates, were enrolled in elementary education courses. Strategies taught were: self- and peer-questioning in small cooperative groups, independent self-questioning, review in small cooperative groups, and independent review. Each class was randomly assigned to a treatment, and students within classes were randomly assigned to groups. Participants were given pre- and posttests on agency and lecture comprehension. Four lectures were devoted to practice sessions. Following each of the lectures, students engaged in a 10- to 12-minute study session, using only the assigned learning strategy. After each practice session and after the final session, a test containing multiple-choice and open-ended items evaluated comprehension of the particular lecture. Agency was determined by a Likert-type scale assessing the degree to which students believed they were the cause of their own success as learners and future teachers. No significant differences were found among the four groups for age, GPA, agency, or lecture comprehension. Performance of the two self-questioning groups was consistently above that of the cooperative and independent review groups. The students' sense of agency was not changed as a result of using any of the strategies.

Nist, Sherrie L., & Simpson, Michele L. (1988). The effectiveness and efficiency of training college students to annotate and underline text. In John E. Readence & R. Scott Baldwin (Eds.), *Dialogues in literacy research,* (pp. 251-257). Chicago, IL: National Reading Conference.

Resports on the effectiveness of the annotate and underline method of text marking for 60 college freshmen. Subjects were randomly assigned to the annotate/underline group or a group which used self-selected study techniques. Three passages from different content areas were used for the three-day training-studying-testing cycle. A 20-item multiple-choice test was used as the measure of the amount of information learned. Students were asked to report on how they prepared for each test and to record their studying times. Results of the three tests and the self-reported measures supported the conclusion that students who are trained how to annotate and underline text spend less time studying and still perform better than students who use self-selected strategies. Rereading was the most widely reported strategy in the control group.

Shindo, Toshihiko. (1989, November). The effects of advance instructions: "How-to" and "Why" in reading explanatory text. *Science of Reading, 33,* 96-103.

Compares the effects of two different types of instruction on the reading of explanatory text by 54 Japanese college students. Subjects were randomly assigned to three groups: How-to, Why, and Test. How-to group members were instructed to read while thinking how to make an accurate forecast on the occurrence of frost. Subjects in the Why group were asked to think about why frost forms. Immediately after reading, subjects rated their interest in the text, rated their metacognitive knowledge of their degree of text understanding, and took a comprehension test. Two weeks later, subjects took the same delayed posttest. On the immediate testing, no differences were found between the two groups. On the delayed posttest, the average score of the How-to group was significantly higher than the score of the Why group. A correlation coefficient between subjects' self-rating of understanding and immediate posttest scores was significant for the How-to group. The How-to group also reported that the text was more interesting.

Lewis, Anne Bovenmyer. (1989, December). Training students to represent arithmetic word problems. *Journal of Educational Psychology, 81,* 521-531.

Investigates whether representation training in arithmetic compares word problems, improves comprehension, reduces error types, and facilitates general problem-solving performance. Subjects were 96 undergraduate students who made reversal errors on pretest word problems. Students were equally divided into the diagram group, the statement group, or the control group. The diagram group received instruction in the identification of different types of word problems (translation) and were taught to draw integrated diagrams representing the relation between problem variables (integration). The statement group received only translation training, while the control group received no instruction. Student ability to translate simple and complex compare problems and performance in general problem-solving were assessed by a 22-item pencil-paper test. All students participated in two training sessions in a modeling-practice format and were given pre- and posttests. Findings indicate that all groups had significant pre- to posttest reductions in reversal errors; however, the diagram group made fewer errors and had the greatest gains in problem comprehension. Difficulty in comprehending word problems containing inconsistent language was greater when addition and multiplication were required, especially for the statement and control groups. The diagram and control groups made modest improvement in general problem-solving abilities, while the statement group displayed adverse effects.

Dwyer, Edward J., & West, Russell F. (1989, Fall/Winter). Demystifying "speed reading": A practical approach for increasing rate. *Forum for Reading, 21,* 68-74.

Seeks to determine if gains in reading rate would be evident during and after a training program. The subjects were 15 students enrolled in an elective, freshman level reading improvement class. Pre- and poststudy assessments of words per minute (wpm) read and comprehension were determined by administration of a selection written at the twelfth grade level of difficulty. Training sessions were held three days a week for three weeks, and techniques included forced reading activities. Students were allowed one-minute periods to read 400-word articles. This was followed by two-minute periods for answering the 10 multiple-choice comprehension questions accompanying each article. The poststudy assessment was completed approximately 10 days after training. Results of t-test analyses for dependent groups demonstrated that the subjects' mean reading rates increased significantly from 209.76 wpm to 348.33 wpm. A significant difference in pre- and postcomprehension scores was not observed; subjects could read at substantially higher rates without loss of comprehension.

Orlando, Vincent P.; Caverly, David C.; Swetman, Leslie A.; & Flippo, Rona F. (1989, Fall/Winter). Text demands in college classes: An investigation.

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Forum for Reading, 21, 43-48.

Examines the reading demands placed on freshman students in college classes and attempts to determine students' perceptions of these demands. Data were collected from 256 first semester freshmen enrolled in four classes and the four professors who taught them. Included were two sections of an introduction to psychology class (82 and 95 students) and two sections of an American history class (42 and 37 students). Approximately a week after mid-semester, the investigators administered a 20-item questionnaire to the professors and to all students in each of the four sections. The faculty survey was verified by a follow-up interview which expanded on the survey questions. Specific questions addressed: (1) the amount of reading required, (2) the purposes of reading, and (3) the relation between the assigned reading and course examinations. Results indicated that students were able to perceive overt demands such as the number of texts, the length of assignments, and the type of tests, but were less able to perceive the more intrinsic demands such as the purposes for the reading assignments. Faculty reported assigning reading for a variety of purposes, including the presentation of concepts and views not covered in class; however, students were not always cognizant of these purposes and tended to rely on the traditional introduction and review of information presented in class as their purposes. With regard to testing, students seemed to focus on recall learning, while professors tended to report higher cognitive objectives such as interpretation and application.

Higbee, Kenneth L. (1989, Summer). What do college students get from a memory-improvement course? *Reading Improvement, 26*, 118-123.

Describes the characteristics of college students who enrolled in a university course on memory improvement and attempts to determine the effects of such a course on both abilities and self-perceptions. Over a period of four years, data were collected from 157 college students who had enrolled in different sections of the memory course. The course met for seven two-hour sessions over seven weeks, and content focused on mnemonics. Demographic data were collected from university records; survey questionnaire data were secured from subsets of participants. The data suggested that: (1) twice as many males as females took the course; (2) students who took the course did not differ from other students in GPA and did not show an improvement in GPA as a result of the course; (3) students reported significant increases in perceptions of their own memory abilities and in use of memory techniques at the end of the course; (4) students reported a significant decrease in their use of memory techniques several months after completing the course; and (5) reported benefits of the course were related more to skills than to knowledge.

V-9 Instructional materials

Smith, Patricia K. (1989). An analysis of reading textbooks used at the college level. In Bernard L. Hayes & Kay Camperell (Eds.), *The yearbook of the American Reading Forum* (pp. 93-104). Athens, GA: American Reading Forum.

Surveys college professors' choices of textbooks for different facets of reading instruction, and analyzes the readability of textbooks most frequently chosen. Two hundred professors of reading, each representing an institution granting graduate and undergraduate degrees in reading, were contacted by mail and asked to respond to questions about texts used in six standard reading courses: foundations, elementary, content areas, diagnosis/remediation, clinical reading, and children's literature. A 35% return rate on the questionnaire revealed the 34 most frequently used texts out of over 300 being used. Each of the 34 texts were computer analyzed for readability level according to five readability formulas, and a mean readability score was then calculated for each text. The texts were classified and ranked for frequency of use within graduate and undergraduate level courses. Classifications revealed inconsistencies in professors' perceptions of course definitions as well as course content, with duplications in texts reported across courses. Texts also were duplicated across graduate and undergraduate levels, with little attention being given to readability.

PERRY, LESLIE ANNE, & SAGEN, PATRICIA SMITH (1989, Summer). Are basal readers becoming too difficult for some children? *Reading Improvement, 26,* 181-185.

Analyzes eight basal reader series to compare the average number of words introduced in grades 1, 2, and 3. Results of the study are compared to analyses conducted on basals from the 1960s and the 1970s. Basals of the 1980s introduce more words than basals of the two previous decades. The authors conclude that the vocabulary load in current books may be too difficult for some children and suggest that teachers may need to adjust instruction when using a basal series with a high vocabulary load.

COMBS, MARTHA; RUSSELL, JIMMIE S.; SIERA, MAUREEN; & DOUGLAS, DOROTHY. (1990, Winter). Underestimating capable readers. *Reading Horizons, 30*(2), 35-44.

Examines the comprehension skill development of capable, primary grade readers indicated by performance in materials accompanying two basal reading series. Subjects were 46 second and 49 third graders who met three criteria: (1) scored at the 50th percentile or above on the MAT, (2) scored above grade level on one or two placement tests accompanying two basal reading series, and (3) had not received instruction in reading above grade level. The pupils were given the end-of-book mastery tests in comprehension for their current grade placement and for the next three grade levels. The criterion for mastery of individual skills was 80%. To examine performance, the percentages of readers mastering the specific comprehension skills tested at each level were determined separately for second- and third-grade readers. Results indicated that pupils in this study had mastered a large number of the comprehension skills tested in the two basal reading series. Without benefit of instruction, the pupils demonstrated mastery of skills as much as three years above their present grade placements. As the level of difficulty of text increased, the percentage of capable readers who could apply the skill decreased. Overall, third grade readers were more accurate in their responses than were second graders. The researchers noted inconsistent sequences of skills between the two basal reading series.

COMAS, JACQUELINE C. (1989, Summer). Award-winning children's literature in basal textbook readers. *Book Research Quarterly, 5,*(2), 16-23.

Documents the language adaptations in selections of award-winning children's literature appearing in basal readers of the 1970s and 1980s. Two editions of eight different basal reading programs were selected for comparison. The first was developed between 1974 and 1970 and the second, in 1986 or 1987. Books at grade levels 2, 5, and 7 were included. A random sample of 50% of the stories receiving awards for literary excellence in both editions of the eight basals (a total of 182 stories) was examined. Adapted language features of analysis included all text alterations. To complete the content analysis, the category of language was divided into 52 subcategories that dealt with grammar, usage, and style. Categorizations of the language features of adopted text were completed by two trained raters who demonstrated a high percentage of agreement. Percentages of change for each of the subcategories of language were determined and compared over time. Findings indicated that for editions of the 1970s and 1980s the language adaptations represented minor modifications such as compound words, commas added for clarity, and synonym substitutions. The practice of dividing long sentences into two or more shorter ones was responsible for fewer than 3% of the adaptations made in the stories. The assumption that award-winning stories in basal stories undergo major adaptations appeared to be erroneous. A large percentage of vocabulary and language structure in the sample basal stories remained consistent with that of the original texts.

DUNMORE, DON. (1989, Autumn). Using contextual clues to infer word meaning: An evaluation of current exercise types. *Reading in a Foreign Language, 6*, 337-347.

Classifies and evaluates exercises aiming to teach the skill of discovering word meaning in context. Five coursebooks published within the past 10 years were examined. The books presented 16 exercise formats which fell into four basic exercise types. Most formats fell into a type requiring the learner to match a given synonym with a word, presumed unknown, appearing in the text. A second frequently found format was a cloze type exercise. The author criticizes both on the basis that they are unlikely to succeed in teaching the skill of using context to infer meanings of words. It is also felt that they risk offering learners an unhelpful or even misleading view of word meaning. It is contended that there is a need for exercises which teach rather than test the use of the strategies needed in discovering the meaning of unknown words.

CHAMBLISS, MARILYN J., & CALFEE, ROBERT C. (1989, Summer). Designing science textbooks to enhance student understanding. *Educational Psychologist, 24*, 307-322.

Compares, in terms of design, fourth grade science textbooks from the U.S., Singapore, and Japan. Three texts were chosen for analysis. In addition to noting differences in the external appearance of the three texts, the authors prepared multilevel diagrams displaying the designs of the texts at the whole book, chapter, and section levels. The books were strikingly dissimilar in size, with the U.S. text being the largest of the group and the Japanese text being slightly smaller than the Singaporean text. The texts also differed significantly at the whole book, chapter, and section levels. The U.S. text embodied a density of information in contrast to the Japanese and Singaporean texts; however, Japanese and Singaporean texts offered examples that were connected to real life experiences of the children while the U.S. text offered examples that were removed from such experiences. Both the Japanese and Singaporean texts were deemed to be more coherent and interesting than the U.S. text.

ALLEN, MIKE, & PREISS, RAYMOND W. (1990, April). Using meta-analysis to evaluate curriculum: An examination of selected college textbooks. *Communication Education, 38*, 103-116.

Examines meta-analyses investigating the effects of four message design strategies (fear appeals, message sidedness, foot-in the door/door in the face, and sleeper effect) and evaluates selected public speaking and persuasion textbooks to determine if literature reviews on each of the four message design strategies incorporate results consistent with relevant meta-analyses. Materials analyzed were 34 textbooks that presented reviews on the four message design strategies. For each strategy reviewed, a scoring system was used that rated each text as: (1) consistent with the conclusions of meta-analyses; (2) contrary to conclusions of meta-analyses; or (3) indecisive, unclear, or vague. Results showed that only for reviews pertaining to the sleeper effect did more than 50% of the textbooks draw conclusions consistent with relevant meta-analyses.

THOMAS, R. MURRAY. (1990. Applying a patriotism texbook-rating device: An Indonesian example. *Educational Research Quarterly, 12*(4), 46-52.

Describes a plan for evaluating how well textbooks promote patriotism. The plan involves the use of a rating device with its application illustrated in the case of four moral education textbooks used in Indonesia. The first part of the device consisted of items to assess instructional standards for patriotism programs, followed by items concerned with teaching methods standards and means of assessment of five types of content: natural history facts, national heroes, moral rules, moral dilemmas, and tasks to be performed. One book was judged best on the rating device while two were found to be least suitable.

V-10 Teaching – grouping/school organization

McGiverin, Jennifer; Gilman, David; & Tillitski, Chris. (1989, Spring). A meta-analysis of the relation between class size and achievement. *Elementary School Journal, 90*, 47-56.

Reports a meta-analysis of the effects of Indiana's project Prime Time, a program designed to reduce class sizes in grades K-3. Data were analyzed from 10 studies of six randomly selected schools and school corporations to determine the effect of class size on reading and math achievement test scores of second graders who had completed two years in the state-supported reduced-class size program. Twenty-four comparisons (3,967 scores) of Prime Time small classes and pre-Prime Time larger classes were conducted, using Fisher's inverse chi-square procedure. Mean scores were taken from the CAT, the ITBS, and the SAT. Results of the meta-analysis were significant (p .001). Ten subsequent comparisons (1,148 scores) were combined for a meta-analysis of a control group where class size was not reduced. These results were not statistically significcant. The findings suggested that Prime Time subjects had higher achievement after two years in the program than did their cohorts in larger classes.

Goldenberg, Claude N. (1989, Fall). Parents' effects on academic grouping for reading: Three case studies. *American Educational Research Journal, 26*, 329-352.

Describes the influence that parents' actions at home have on the teacher's perceptions of children's ability, group placement, and success in reading achievement. Three case studies were drawn from a sample of nine first grade Hispanic children who had low scores on the kindergarten Student Rating Scale. Data were gathered from kindergarten through the end of first grade and included teacher ratings and interviews, classroom observations, parent interviews, and pupil test performance. Teacher ratings of children focused on predicting individual success and assessing actual reading performance in kindergarten and first grade. Classroom observations were conducted every two to three weeks for eight months and focused on behaviors related to reading. The parent interviews were conducted in the native language and utilized open ended questions related to aspects of home life presumed to influence academic achievement. Children were tested at the beginning, middle, and end of first grade, using the mastery test from the kindergarten readiness book, and two word recognition measures developed by the researcher. Two of the three case studies presented were considered successful in first grade reading. These results are discussed in terms of how parental actions in the home enhance the quality of instructional opportunities in school by influencing children's skills and behaviors. These in turn affect the teachers' perceptions of the student's ability and group placement.

Walker, Jane, & Levine, Daniel U. (1988, Winter). The inherent impact of nonpromoted students on reading scores in a big city elementary school. *Urban Review, 20*, 247-252.

Examines data from eight classes in one Kansas City, Missouri, elementary school to determine the effect of retaining low achieving children for an additional year at current grade placement on test scores for the current grade and for the next higher grade to which they would have been promoted. Comparing end-of-the-year averages for classes enrolling retained pupils, with and without the nonpromoted pupils' scores included, determined that including retained children's scores raised scores approximately one month. In a comparison of average reading scores of retained and nonretained pupils, retained students scored higher. Average annual gain in preretention years was compared with gain in retention year. Results suggested that an increase of more than a third of a month per child was attributable to retention, without any increase in rate of learning among retained pupils. Taking the average growth rate for retainees up to the year they were retained, and adding this score to the scores at the next grade to which they would have been promoted, produced an average increase of .33 months across the five grade levels. The authors conclude that retention can result in a spurious increase in average achievement scores at both the retention grade and for the following year.

Labbo, Linda D., & Teale, William H. (1990, February). Cross-age reading: A strategy for helping poor readers. *Reading Teacher, 43*, 362-369.

Assesses the effectiveness of cross-age reading on below average readers in the fifth grade. Eighteen pupils were randomly assigned to one of three groups: (1) cross-age readers group (n=7) where pupils practiced and read trade books to kindergarten children; (2) art partners groups (n=7) where pupils interacted with kindergarten students in art activities; and (3) basal readers group (n=4) in which instruction resulted from the use of basal materials. The pupils participated in their respective group for 15 to 20 minutes, four times a week for eight weeks. The cross-age readers group received instruction in book selection and presentation, opportunities for repeated readings, and postreading reflection groups, where evaluation took place through modeling techniques. Pre- and posttest performance was assessed by the GMRT, the Piers-Harris Children's Self-Concept Scale, the Teale-Lewis Reading Attitude Scales, and the Goodman-Watson-Burke Reading Interview. ANCOVA were conducted on posttest scores using the GMRT pretest scores to control for differences in reading ability. Significant results were found for reading achievement with the cross-age reading group yielding the highest performance. Null results were achieved on the self-concept and reading attitude scales, although gains in self-concept were noted for the readers group. Chi-square analysis of performance on the Reading Interview reported significant gains in the knowledge and use of reading strategies for the cross-age readers group. Two case studies in the cross-age group were produced from the observational data and summarized to illustrate the nature of these effects.

Ysseldyke, James E.; Thurlow, Martha L.; O'Sullivan, Patrick; & Christenson, Sandra L. (1989, Summer). Teaching structures and tasks in reading instruction for students with mild handicaps. *Learning Disabilities Research, 4*, 78-86.

Investigates whether there are differences in grouping arrangements and tasks during reading instruction for mildly handicapped and nonhandicapped students in mainstream and special education settings. Subjects were 12 emotionally/behaviorally disturbed, 21 LD, 14 educable mentally retarded, and 30 nonhandicapped pupils in grades 2 to 4 from 10 schools. A time sampling observation system was employed during entire academic days from November through May. Results indicated that the total amount of time allocated to reading instruction did not differ among the groups of children. An entire group structure was noted in the regular classroom, while individual structures were used during reading instruction in special education settings. The majority of the instruction time involved pupils using their reading textbooks or working on paper-focused tasks in both settings. In contrast to the mainstream setting, special education classes had considerably less time devoted to teacher-focused tasks than was directed to worksheets. The investigation concluded that, while the teaching structure differs as a function of the setting, the general nature of reading instruction does not differ among the handicapped groups when compared with their nonhandicapped peers.

Baker, Janice M., & Zigmond, Naomi. (1990, April). Are regular education classes equipped to accommodate students with learning disabilities? *Exceptional Children*, *56*, 515-526.

Describes the extent to which an elementary school could accommodate the needs of special learners in a full time mainstreaming program. One urban elementary school serving 266 pupils was chosen for a case study analysis. Data were collected in 12 regular education classes, 2 at each grade level, and consisted of informal and formal observations; interviews; questionnaires; examinations of school records; and surveys of students, parents, and school personnel. The observation schedule focused on classroom activities, the nature of instruction during reading and math, and the frequency of pupil and teacher behaviors. Results of the study describe the overall nature of the school and aspects of the instructional program as they relate to accommodating to individual differences in these subject areas. Findings suggest that fundamental changes in the observed instructional practices would be necessary for the regular education classrooms if a full time mainstreaming program were to be successful. Recommendations are given for the modifications required.

V-11 Corrective/remedial instruction

Wesson, Caren L., & Deno, Stanley L. (1989, January/February). An analysis of long term instructional plans in reading for elementary resource room students. *Remedial and Special Education*, *10*(1), 21-28.

Examines the long term instructional plans for resource room pupils during one academic year to determine the type of reading instruction planned with respect to the number and type of activities per day, duration of the activities, and changes made in plans. Also of interest were the motivational strategies, teaching arrangements, and degree of overlap of plans written by the same teacher for two or more pupils. The study included 62 children in grades 1 through 7 who fit state criteria for learning disabilities, emotional disturbance, or mental retardation. Pupils and their 22 teachers were drawn from four different special education cooperative districts. Teachers were trained to develop long term instructional plans that differed from daily lesson plans during a three-hour workshop. They were told to use an instructional plan form designed for this study. Teachers' plans were collected at the end of the school year. The data were analyzed by completing counts of key items (minutes, instructional activities, changes in plans), by calculating percentages, and by determining ratios. Pupils spent 47% of their resource room time in a one-to-one situation; they were assigned to read aloud to the teacher 38.8% of the time and to work independently about one-third of the time. The average number of changes made in the instructional plans was 1.6. For 29 of the children, teachers made no changes in initial plans throughout the course of the study. Social, tangible, and activity incentives were the most prevalent motivators listed in 37%, 27%, and 17% of the activities, respectively. Finally, there was little instructional uniqueness noted: 82% of the activities listed in the plans were used for more than one student.

Reyhner, Jon, & Garcia, Ricardo L. (1989, Spring). Helping minorities read better: Problems and promises. *Reading Research and Instruction*, *28*(3), 84-91.

Advances the thesis that ethnic and racial minorities are overrepresented in remedial programs because there is cultural discontinuity between the home and school. Reviews three exemplary reading programs for minority students: the Los Lunas, New Mexico, program, the Kamehameha program in Hawaii, and the Rock Point, Arizona, program for Navajo students. Suggests characteristics for a model responsive reading teacher who will meet the needs of pupils with minority backgrounds.

HAGIN, ROSA A. (1988). Prevention of reading problems. In Carolyn N. Hedley & John S. Hicks (Eds.), *Reading and the special learner* (pp. 73-87). Norwood, NJ: Ablex.

Examines general principles of prevention and illustrates a specific preventive approach that has continued in public schools in New York City. Describes the use of marker variables to locate target children, to assess their strengths and needs, and to plan and implement an individualized intervention program. Early identification of children vulnerable to learning failure, diagnostic evaluation, and specific educational intervention yielded statistically significant improvement in oral reading, word attack skills, and reading comprehension. The long term effects of the program were additionally assessed through measures of motivation and interpersonal adjustment. Resulting data provided evidence that the prevention of reading problems in elementary school children is possible.

LYONS, CAROL A. (1989, July). Reading recovery: A preventative for mislabeling young "at-risk" learners. *Urban Education, 24*, 125-139.

Compares the running records of 60 first-grade children, 30 labeled as LD and 30 not labeled, to determine the effect of instruction on oral reading patterns over time. All subjects received pull-out Reading Recovery instruction, as well as reading group instruction in their first-grade classrooms. Two running records where subjects had an accuracy rate of at least 85% were randomly selected from each of the six levels of basal series tested in the program. Running records were compared for entry level, the combined records at levels 3, 4, and 5, and for exit level, the combined records at levels 8, 9, and 10. Records were analyzed for changes in the seven categories of cue use: meaning; language structure; visual; meaning and structure; meaning and visual; structure, and visual; and meaning, structure and visual. Significant differences existed at the entry level, with the LD children relying more on visual information while the nonlabeled group used multiple sources of information. No significant differences were found on exit level, as the groups became more alike during the Reading Recovery program. The LD children shifted from using visual clues to using more multiple cueing systems.

JULIEBÖ, MOIRA; NORMAN, CHARLES A.; & MALICKY, GRACE. (1989, Summer). Intense intervention for young readers at-risk. *Reading-Canada-Lecture, 7*, 122-127.

Describes the implementation of selected aspects of the Reading Recovery program with a small group of Canadian children and their three teachers. The three boys and three girls were assessed using diagnostic instruments from Clay's battery and from the Informal Reading Inventory (IRI) and the Woodcock Reading Mastery Tests (WRMT). The three teachers participated in inservice sessions during the spring preceding the instruction and continuing twice a month in the fall. Each teacher provided intervention for one child in the fall term and another in the winter term. Fall term pupils were nearing the end of first grade and winter term pupils were experiencing difficulties at the mid-point of grade 1. Pupils received daily intervention sessions of 40 minutes each. The sessions were discontinued after approximately 13 weeks and pupils were reassessed with the IRI and the WRMT. New children were selected for intervention of approximately 12 weeks. This new group did not reach discontinuation. Project findings parallel findings from studies in New Zealand and Ohio. Test scores improved and miscues revealed changes in strategies and more self-monitoring and correcting. One distinct difference in the Canadian project was the finding that second grade did not appear to be too late to use the intervention techniques.

PLUCK, MERYL-LYNN. (1989). Reading recovery in a British infant school. *Educational Psychology, 9*(4), 347-358.

Studies progress of children receiving Reading Recovery program intervention in a British infant school. Subjects were the eight lowest achieving readers between the ages of 6 and 6.5 on the Diagnostic Survey. Of the eight, four received Reading Recovery program tutoring for 11 weeks, while the other four were used as controls. Comparisons of initial and final test results showed significant mean stanine increases in all areas tested on the Diagnostic Survey as well as significant book level increases for the tutored group. All tutored children achieved far beyond the point of being the poorest readers in the class.

KUDER, S. JAY. (1990, January). Effectiveness of the DISTAR reading program for children with learning disabilities. *Journal of Learning Disabilities, 23*, 69-71.

Examines and compares the effectiveness of the DISTAR program with a traditional basal program with LD children. Subjects included 48 perceptually impaired children from seven self-contained, special education classrooms. Half of the children were in classrooms using DISTAR and the other half were in classrooms using a traditional basal program. Mean CA in both groups was 8-10. Reading achievement was assessed by means of the WRMT at the end of the first and second years of the program. Results at the end of both years indicated little difference in general between the two groups. DISTAR children did make better progress in word attack skills, but both groups continued to fall behind age expectations for achievement.

MEDCALF, JOHN. (1989). Comparison of peer-tutored remedial reading using the pause, prompt, and praise procedure with an individualized tape-assisted reading program. *Educational Psychology, 9*(3), 253-262.

Reports results from an eight-week program implemented with ten 9- to 11-year-olds who were previously classified as low progress readers. Subjects were randomly assigned to one of two treatments: peer-tutoring using Pause, Prompt, and Praise procedures, or individualized tape-assisted reading programs (TARP). Three children were randomly assigned to be trained as peer tutors, three were randomly assigned to receive peer tutoring, and the remainder were assigned to the tape-assisted program. All were pretested and posttested with the Dunedin Teachers' College Informal Prose Inventory. Running records were kept on reader behaviors during peer-tutoring sessions and during conferencing in the TARP procedure. Tutors received training sessions in the Pause, Prompt, and Praise procedures, and teachers gave feedback to tutors on their application of techniques. In TARP, subjects listened to taped stories as many times as they wanted and requested conferences when needed. Children kept a notebook of the titles of stories read and the number of listenings at home and school. Gains were substantial for pupils in both programs, with greatest gains for those who had been the peer tutors. Gains were maintained and increased at follow-up evaluations six weeks later. Six months later, gains were still evident, but average gains for subjects in both programs were similar. Pupils who had been the tutors in the peer-tutoring program still showed the largest gain.

GILROY, ANNE, & MOORE, DENNIS W. (1988). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities with ten primary school girls. *Educational Psychology, 8 (1&2)*, 41-49.

Evaluates the effects of comprehension-monitoring and comprehension-fostering activities used with three different class groups of low reading comprehenders. Subjects were 28 girls from an urban New Zealand primary school. Ten girls were selected to form three experimental groups based on the discrepancy between their decoding scores on the Burt Word Reading Test and comprehension scores on the Progressive Achievement Test (PAT) in reading comprehension. Comprehension scores showed deficits of about two years while decoding scores were equivalent to CA peers. Nine girls with PAT scores between the 45th and

65th percentiles and 9 scoring above the 85th percentile were used as comparison groups. Experimentals met daily for 45-50 minute sessions for 21 days in which they were first taught a reciprocal teaching procedure and then given an assessment text and test. Baseline, intervention, maintenance, and follow-up data were collected. Findings indicated significant increases in accuracy on comprehension tests for all three experimental groups. Follow-up data eight weeks later showed that comprehension gains were maintained.

LYSYNCHUK, LINDA M.; PRESSLEY, MICHAEL; & VYE, NANCY J. (1990, May). Reciprocal teaching improves standardized reading-comprehension performance in poor comprehenders. *Elementary School Journal, 90*, 469-484.

Studies the effects of reciprocal teaching on the comprehension of poor readers. Subjects were 36 fourth-grade pupils and 36 seventh-grade pupils who demonstrated adequate decoding skills and poor comprehension ability on standardized measures. None was classified as LD or mentally retarded. Subjects at each grade were randomly assigned to either the control or experimental condition on the basis of test results so that groups were comparable with respect to comprehension performance. Training occurred in small groups of two to five students over the course of 13 days. Experimental group subjects were instructed to make predictions when reading, to generate questions about text, to summarize what was read, and to clarify points that were hard to understand. The strategies were taught using a reciprocal instruction approach. Control subjects were presented with the same reading materials and were assisted with decoding and vocabulary if they requested help, but were not given strategy instruction. Daily assessments of comprehension and pre- and poststudy administrations of standardized tests were collected. Daily assessments alternated between the use of 19 short-answer questions and retellings of passages from memory. Fourth graders were tested on the MAT (comprehension subtest) and the Canadian Tests of Basic Skills (vocabulary). Seventh graders were administered vocabulary and comprehension subtests of the GMRT. Analyses revealed that reciprocal teaching improved performance on the daily assessments and that pre-to-posttest gains in comprehension performance on standardized tests were limited to subjects in the reciprocal teaching condition.

CRAWFORD, JOHN. (1989, September). Teaching effectiveness in Chapter I classrooms. *Elementary School Journal, 90*, 33-46.

Uses a process-product approach to examine data from 79 Chapter I teachers and their pupils in the Oklahoma City Public Schools. Results were compared with findings from regular classrooms described in the research literature. Instruments used were: (1) a dyadic interaction analysis system focusing on public response opportunities, pupil-initiated questions and comments, private teacher-afforded contacts, and private child-created contacts; (2) a 5-point high-inference rating of teacher use of higher-order questions, distribution of teacher contacts, and difficulty of seatwork; and (3) total reading and total math scores taken from the CAT. Data were aggregated for subject and grade-related relations. In elementary reading, 16 process variables correlated significantly with achievement. In elementary math, 12 process measures were significantly related to gains. Different patterns emerged for fifth through eighth grade, suggesting that effective teaching strategies are not the same across grades and subjects. More agreement with prior research was found in the area of quantity and pacing of instruction than in form and quality of instruction. Contradictory results related to degree of challenge in the lesson, to correlations between praise and gain and criticism and gain, and to the effectiveness of private contacts between the teacher and individual students.

SALAS, BEVERLY ANN. (1989, September). The phenomenon of dyslexia in one public school system. *Academic Therapy, 25*, 59-73.

Describes and evaluates the process and outcome of one school district's attempt to develop a specialized reading program for severely disabled readers. From 61 children referred, a total of 12 were diagnosed as dyslexic. The 12 dyslexics consistently performed more poorly on the TORC as well as on oral and written language behaviors. Pre- and posttest data collected on the Assessment of Basic Phonic Skills revealed that children mastered the skills taught in the program. Children in grades 2-4 showed more gains on the TORC posttest results than did children in grades 5-6.

NEWBY, ROBERT F.; CALDWELL, JOANNE; & RECHT, DONNA R. (1989, June/July). Improving the reading comprehension of children with dysphonetic and dyseidetic dyslexia using story grammar. *Journal of Learning Disabilities, 22*, 373-380.

Attempts to increase the narrative text comprehension of children with dysphonetic or dyseidetic dyslexia by introducing story grammar instruction. The treatments were designed to build upon the strengths of children with dyslexia, rather than remediate their deficits. The subjects were four children with dysphonetic dyslexia and three with dyseidetic dyslexia, all ages 8 to 10 years, who applied for tutoring services at a college-based reading clinic. They were of average verbal ability and below grade placement levels in reading comprehension. An experimental, single subject design was used, and each student was given two 70-minute, one-to-one tutoring sessions per week for seven weeks. Multiple baseline measures were taken across subjects. The story grammar instruction was matched to the processing strengths of each dyslexia type: simultaneous for the dysphonetic pupils, and sequential for the dyseidetic subjects. Outcome measures were taken at the end of each session and included the number of words read orally in one minute, percentage of new words read correctly, and number of idea units recalled from the passage read. Both quantitative and qualitative methods were used to measure idea units. The oral reading and vocabulary measures showed no treatment effects. The quantitative comprehension recall measure showed an ambiguous treatment effect; however, the qualitative analysis method yielded substantial improvements in the proportion of qualitatively important story elements recalled by the subjects when compared with baseline, traditional remedial instruction.

LOVETT, MAUREEN W.; RANSBY, MARILYN J.; HARDWICK, NOREEN; JOHNS, MARIE S.; & DONALDSON, SALLY A. (1989, July). Can dyslexia be treated? Treatment-specific and generalized treatment effects in dyslexic children's response to remediation. *Brain and Language, 37*, 90-121.

Evaluates three alternative instructional approaches for children with specific reading disabilities in order to identify both specific and generalized treatment effects. The effects of two remedial treatment approaches, a Decoding Skills Program (DS) and an Oral and Written Language Stimulation Program (OWLS), were compared with that of a control procedure containing no specific academic content, a Classroom Survival Skills Program (CSS). The 178 disabled readers were randomly assigned to experimental conditions. The subjects had a mean age of 10.8 years and were of average intelligence. Two types of disabled readers were accepted as subjects. One group exhibited significant problems in decoding accuracy, and the second demonstrated a marked deficit in word recognition speed and reading rate despite grade-appropriate word recognition. A total of 40 treatment sessions, 50-60 minutes in duration, were conducted four times a week for a 10-week period. Two test batteries were used to assess reading, spelling, and nonreading skills, including four standardized measures (Gilmore Oral Reading Test, PIAT Reading Recognition, Slosson Oral Reading Test, WRAT-R Reading), two pseudoword reading/spelling measures, a set of sound-symbol processing tests, two standardized spelling achievement tests (WRAT-R, PIAT), two standardized measures of oral language development (Detroit Verbal Opposties, ITPA Grammatic Closure), and the Rapid Automatized Naming task. In addition, subjects in the DS treatment were administered separate measures of word recognition accuracy for regular, exception, and pronounceable pseudowords, as well as spelling-to-dictation tests; subjects in the OWLS group were given a variety of contextual reading, spelling, and oral language comprehension measures. All three treatment samples exhibited significant improvement on most measures in their posttest performances. The DS and OWLS treatments resulted in superior improvement on selected tests in comparison with the CSS treatment; greater generalization of treatment effects was observed for the DS sample. While DS subjects exhibited better word recognition skills, their knowledge of grapheme-phoneme correspondence rules was not improved. Several OWLS-specific effects observed on experimental reading and language measures were not observed on standardized tests.

KOZLESKI, ELIZABETH B. (1989, Winter). Improving oral reading performance through self-monitoring and strategy training. *Reading Improvement, 26,* 305-314.

Studies the combined effects of self-monitoring and task specific instructional strategy training on one poor reader's oral reading performance. The subject was a female third grader who, on the WRMT, scored above grade placement in reading comprehension and below grade placement on word attack. After establishing a baseline of the subject's oral reading performance, training was implemented to develop the pupil's oral reading ability through the use of (1) an eight-step decoding strategy and (2) a strategy which required the child to keep track of miscues that made no sense. Over several training sessions, each strategy was first modeled by the instructor and then rehearsed by the pupil, first separately in rotation, and later in combination. Results of the training indicated that, while comprehension remained stable, a reduction of miscues occurred. Observations over 28 sessions also suggested increases in the subject's fluency, expression, and reading speed.

TRAYNELIS-YUREK, ELAINE. (1988, Summer). Providing an oral fluent model for spelling and reading success. *Reading Improvement, 25,* 105-109.

Ascertains whether an adapted neurological impress approach to increase spelling ability would also increase sight word reading accuracy. The 12 tenth- and eleventh-grade students scored between 3.7 and 6.5 on the spelling subtest of the WRAT and between 4.5 and 8.4 on the SORT. Treatment was given daily with five words a day for four months. Posttest results showed mean gains of 2.6 years on the WRAT spelling and 1.6 years on the SORT.

BRETT, CLARE, & BEREITER, CARL. (1989, Fall). A cognitive-adaptationist approach to remediating reading problems. *Journal of Reading, Writing, and Learning Disabilities, 5,* 281-291.

Reports a case study in remediating the reading disability of a third-grade boy who was reading below average for his grade placement on the Spache DRS, the Biemiller Reading Process Test, and the Canadian Test of Basic Skills (CTBS). Remediation involved the pupil and instructor identifying what strategies the pupil used, helping the pupil understand the consequences of the strategies used and learning what alternatives the pupil had to those strategies. After six weeks of instruction, behavioral observations suggested changes in strategy use, self-confidence, metacognition, and attitude toward reading. Performance on the CTBS and the Spache DRS supported the behavioral observations of growth in reading strategies.

SCHMIDT, MARY W. (1989, Summer). Method of questioning and placement of questions: Effects on LD students' comprehension. *Learning Disability Quarterly, 12,* 192-198.

Examines the effect of method of questioning and question placement on the comprehension of materials read silently by 120 subjects in grades 6-9 who had been identified as learning disabled by the three different school districts where they were enrolled. The areas of interest were two questioning modes (adjunct questioning and oral recitation), two placements of questions (middle/end and end only), two levels of learning (knowledge-level questions and comprehension-level questions), and two focus of question content (questions asked and unasked during the questioning treatment). Fifteen subjects were randomly assigned to each treatment group. Questioning treatments were administered through scripted lessons, with basic procedures the same for all groups: vocabulary review, directions, silent reading, questioning treatment, directions and samples for posttest, and posttest. Subjects in oral recitation performed significantly better ($p < .05$) than subjects in adjunct groups. Subjects in end-only groups outperformed subjects in middle-end groups, although results were not statistically significant. Comprehension questions were harder than knowledge questions; asked questions were easier than unasked questions. There was a significant interaction ($p < .05$) between level of question and focus of question. Knowledge-level questions were easier than comprehension questions in both asked and unasked condition, and asked questions were easier than unasked.

KIBBY, MICHAEL W. (1989, September). Teaching sight vocabulary with and without context before silent reading: A field test of the "focus of attention" hypothesis. *Journal of Reading Behavior, 21*, 261-298.

Tests the "focus of attention" hypothesis of sight word acquisition with 16 disabled readers enrolled in a six-week summer university remediation program. Subjects received individual instruction over a four-week period. Each was taught by a different instructor. Subjects were stratified on GMRT, WRAT, SIT, and PPVT scores and then randomly assigned to conditions: (1) context, which emphasized context, meaning, usage, and visual characteristics; and (2) minimal-context, which emphasized visual characteristics only. Words taught were similar in length, frequency, and grammatical classification. Number of words learned or retained per minute of instruction was the dependent variable. Subjects in the minimal-context condition learned at twice the rate of the subjects in the context condition. There was no significant difference between the two groups in numbers of words learned or number of words retained. The researcher concluded that findings support the focus of attention hypothesis.

COHEN, ANDREW L.; TORGESEN, JOSEPH K.; & TORGESEN, JEFFREY L. (1988, Fall). Improving speed and accuracy of word recognition in reading disabled children: An evaluation of two computer program variations. *Learning Disability Quarterly, 11*, 333-340.

Explores the effectiveness of two versions of *Words*, a computer program designed to increase sight word vocabulary. Subjects were nine reading disabled children, average age 10-7. Pupils identified 90 words in practice sets of 10 words each. Three levels of practice were provided, with type of distractor varying with level. In Activity 1, each word was presented individually, along with a picture; in Activity 2, the computer presented a picture and two words; and in Activity 3, the picture was first presented alone. After the pupil recognized the picture, three words were presented for pupil choice. Pupils in the typing version typed in their response; those in the no-typing version pressed the spacebar to register responses. To move to the next level of materials, pupils needed to respond with 90% accuracy. Pupils worked 13 minutes a day for five days, or until mastery criteria were met for all levels of *Words*. Experimenters recorded the instructional time for each word set. A repeated-measures design measured each pupil's responses under three conditions: typing, no typing, and no practice. On reading and spelling tests administered as pre- and posttests, typing and no-typing conditions were equally effective in teaching subjects the individual words. Response speed decreased in both conditions. Improvement in spelling occurred only in the typing condition. Mastery for new words was faster in the no-typing version, and pupils reported liking the no-typing version better.

Lenz, B. Keith, & Hughes, Charles A. (1990, March). A word identification strategy for adolescents with learning disabilities. *Journal of Learning Disabilities, 23*, 149-158, 163.

Examines the effects of teaching a seven-step word identification strategy (DISSECT) to 12 adolescents classified as LD to determine whether there would be a decrease in the number of word identification errors made during oral reading and an increase in overall passage comprehension. Dependent measures were three oral reading tasks and two delayed reading comprehension measures, all taken from published instructional materials. Instruction took place daily, for approximately 20 minutes, over a six-week period. A multiple-baseline across subjects design was employed and replicated three times, with three students participating in each design. Oral reading errors were higher for grade level materials than for ability level materials for all subjects. Frequency of errors decreased after strategy instruction. With the exception of one student, scores on comprehension were better than scores earned before training, although gains were inconsistent. Performance levels were maintained for five weeks after training was discontinued.

Cutler, Robert B., & Truss, Carroll V. (1989, Summer). Computer aided instruction as a reading motivator. *Reading Improvement, 26*, 103-109.

Investigates the efficacy of computer assistance, which immediately pronounces words and provides definitions of target words as requested, on the reading fluency of remedial students in junior high school. The subjects were five eighth-and ninth-grade students enrolled in a remedial reading class. Three popular teenage novels were selected for their high interest level on the basis of pilot studies and were presented to the subjects in order of increasing difficulty. Approximately 15 words from each page of each novel (totaling 6,400 words from 434 pages of text) were encoded in computer memory by the researchers. Words were selected on the basis of pilot studies using similar reading materials and comparable students. The program allowed readers to access the pronunciation and a definition, or synonym, for each target word. Each subject received approximately five weeks of CAI, one class period per day, five days per week. Effects were assessed by calculating reading rates each day and maintaining counts of words requested per page, per book. Pre- and poststudy vocabulary tests from the ITBS, Forms 5 and 6, at the sixth grade level, also were administered. Repeated measures ANOVA confirmed a significant increase in students' reading rates both between and within books. A decline in number of word requests was observed. Vocabulary tests were analyzed to determine the number of words on each subtest that had been encoded and could be requested. It was observed that when subjects were reading and came across words that were encoded and which they had previously missed on the pretest, or would later miss on the posttest, they were not likely to request those words.

Rottman, Theresa., & Cross, David R. (1990, May). Using informed strategies for learning to enhance the reading and thinking skills of children with learning disabilities. *Journal of Learning Disabilities, 23*, 270-278.

Examines the effects of a classroom based metacognitive reading program on the reading performance of LD children. Subjects were 18 children, ages 8 and 9, attending a university campus school for LD children. All the children had average to above average intelligence but attained achievement test scores that were significantly below expectancy. The study spanned four weeks of pretesting, five weeks of instruction and two weeks of posttesting. During pre- and posttesting, children were given the Perceived Competence Scale for Children, the Index of Reading Awareness and the Strategy Reading Task. During the instructional phase, children were taught various reading strategies by their classroom teachers who used selected modules from the Informed Strategies Learning program. Assessment of progress in specific skills taught was accomplished during all three phases of the study. Results of various analyses applied to the data suggest that metacognitive training can be effective in improving LD children's comprehension skills as well as their awareness about reading.

SNIDER, VICKI E. (1989, Spring). Reading comprehension performance of adolescents with learning disabilities. *Learning Disability Quarterly, 12*, 87-96.

Investigates the effects of prior knowledge on the reading comprehension of LD junior high school students. The sample included students from three schools serving populations of similar SES status. All subjects were LD students of average IQ (WISC-R) and were selected on the basis of both adequate decoding ability and limited knowledge of the pertinent content and vocabulary. The 13 students in one school comprised the experimental group; 13 students from the other two schools formed the control group. All received 50 minutes of instruction daily for three weeks. The experimental group instruction involved: (1) a structured oral presentation of the information or vocabulary, (2) application of the information as a group, and (3) written exercises designed to provide independent practice with the newly acquired information. A total of 24 new concepts were taught. The control group read and answered questions about selected passages in a literature anthology. To assess the effects of prior knowledge on comprehension performance, comprehension tests corresponding to the 24 topics presented in the experimental condition were administered via computer. ANOVA techniques yielded significant differences for main effects, indicating that instruction designed to increase prior knowledge benefits reading comprehension performance. The degree of difficulty of a comprehension question was influenced by the amount of information provided in the text. Textually explicit questions were the easiest, followed by textually implicit questions. Scriptually implicit questions were the most difficult for all students.

BILLINGSLEY, BONNIE S., & WILDMAN, TERRY M. (1990, March/April). Facilitating reading comprehension in learning disabled students: Metacognitive goals and instructional strategies. *Remedial and Special Education, 11*, 18-31.

Discusses recent research in reading comprehension and provides suggestions for facilitating self-regulation among LD and at-risk students. Specific topics reviewed include: metacognitive theory, metacognitive goals for instruction, selected research on improving reading comprehension, and specific instructional implications for facilitating and increasing readers' control of comprehension processes.

WORK, MARVIN G., & MCLAUGHLIN, T.F. (1990, Spring). The effects of a skill-based individualized reading program on reading achievement of adolescents and adults with low reading ability. *Reading Improvement, 27*, 58-63.

Reports the effects of the Intermediate Level ABE Reading Course on adult learners and classified junior high school students. This program comprises three sections; word recognition, vocabulary, and comprehension/study skills. In Experiment 1, six educably mentally handicapped students in a special education language arts classroom (grades 7-9) were randomly placed into a control or experimental group. The experimental group worked five hours a week for 12 weeks on the vocabulary skills module. The control group continued using the regular program. Pre- and posttest measures using the SDRT reported significant differences between percentile rank and grade equivalent gain scores for the two groups on the auditory vocabulary subtest. Experiment 2 replicated the study using seven adult students (five experimental and two control) ranging in age from 17 to 50 from a vocational community college and scoring at a stanine 3 or less on the SDRT. The number of modules completed and the time spent working the course varied among the five experimental subjects. A comparison of stanine gains was found to be significant and became greater for SDRT subtests that corresponded directly to word recognition skills.

Guyer, Barbara Priddy, & Sabatino, David. (1989, August/September). The effectiveness of a multisensory alphabetic phonetic approach with college students who are learning disabled. *Journal of Learning Disabilities*, *22*, 430-434.

Investigates whether LD college students would make significantly more progress when taught reading using a modification of the Orton-Gillingham (O-G) approach. Subjects were 30 college LD students, aged 17 to 24, attending a university summer school. The students were of average verbal ability, with a mean WAIS-R IQ of 105.7. They were divided into three equal groups. The students in Group 1 received no intervention. Group 2 subjects were taught reading using an adaptation of O-G; Group 3 students were taught reading using a nonphonetic approach that included oral and written activities to improve decoding skills and comprehension. Progress was analyzed using pre- and posttest scores on the WRAT-R and Woodcock Reading Mastery Tests. An ANCOVA with repeated measures, using IQ scores as the covariate, was applied to assess treatment effects. The O-G group was found to achieve statistically significant improvement in reading when compared with the other groups. No statistically significant difference was noted between the other two groups.

Holt, Sondra B., & O'Tuel, Frances S. (1989, Winter). The effect of sustained silent reading and writing on achievement and attitudes of seventh- and eighth-grade students reading two years below grade level. *Reading Improvement*, *26*, 290-297.

Hypothesizes that there will be significant improvements in reading and writing achievement and more positive attitudes toward reading as a result of a program of sustained silent reading (SSR). Subjects, 211 seventh- and eighth-graders who were reading two or more years below academic grade placement, were randomly assigned to experimental and control groups. Subjects were predominantly black and from low SES backgrounds. Controls continued using a basal series during the 10-week period of instruction. Experimentals received basal instruction 10 minutes less each day than did controls, and engaged in 20 minutes of SSR three days a week and 20 minutes of writing two days a week. Pre- and posttest data were collected using alternate forms of the GMRT and the writing test of the Sequential Tests of Educational Progress (STEP-W). In addition, the Estes Attitude Scale and the Sager Writing Scale were administered as pre- and posttest measures. Data were analyzed using ANCOVA procedures. Each of the eight seventh-grade and eight-eighth grade teachers taught one control and one experimental class. For the total sample, significant differences were found favoring the experimental groups on the GMRT vocabulary and comprehension subtest scores, the Sager writing scores, and the Estes attitude measure. No differences were found for STEP-W scores, and no significant differences were found by sex. At grade 7, experimentals scored significantly higher on the GMRT as well as on attitude; for grade 8, the vocabulary on the GMRT and both writing measures favored the experimental groups.

V-12 Teaching bilingual/other language learners

Oxford, Rebecca, & Crookall, David. (1989, Winter). Research on language learning strategies: Methods, findings, and instructional issues. *Modern Language Journal*, *73*, 404-419.

Reviews the literature on language learning strategies (LLS), the behaviors used by learners to move toward proficiency in second or foreign languages. Included are discussions of research terminology and methodology, a review of LLS studies using the research methods as organizing principles, and instructional issues. The reviewers concluded by suggesting ways for improving LLS research.

Genesee, Fred; Holobow, Naomi E.; Lambert, Wallace E.; & Chartrand, Louise. (1989, Autumn). Three elementary school alternatives for learning through a second language. *Modern Language Journal, 73*, 250-263.

Reports a longitudinal evaluation of second language learning programs in Montreal to determine: (1) the advantages of extended second language instruction in the absence of peer contact in the target language; (2) the benefits associated with a delayed beginning of grade four in immersion programs, rather than an immersion in kindergarten; and (3) the effects on first language learning of delayed and reduced instruction in the first language. Subjects were categorized in four groups: anglophone pupils in all French schools, pupils enrolled in an early total immersion program, and French control subjects. All were matched on length in program, first language, and socioeconomic status. Subjects completed the Raven's Standard Progressive Matrices, subtests from the Canadian Achievement Test, a battery of French language tests, and standardized mathematics achievement tests. One-way ANOVAS were conducted. No significant differences were found on nonverbal reasoning and English language test results. Significant differences were found on French reading comprehension tests, French listening comprehension assessments, and on some of the measures of French writing skills and French speaking skills. No differences were found on mathematics achievement.

Nathenson-Mejia, Sally. (1989, September). Writing in a second language: Negotiating meaning through invented spelling. *Language Arts, 66*, 516-526.

Examines the invented spellings in the writings of Spanish-speaking first graders to determine how they used what they knew about both Spanish and English orthographies in order to write meaningful texts in English. The pupils were 6- and 7-year-old children in a bilingual program at an American school in Mexico. They were familiar with books and print in both Spanish and English. The researcher instructed twelve first graders for nine weeks in biweekly sessions totaling 90 minutes per week. Sessions included the reading of an English trade book, discussion about the reading in both English and Spanish, a shared rereading, and time for the children to draw a picture about the story and write a caption in English. The captions provided the writing samples for analyses, and more than 200 pieces of writing were collected. In their writing, the children used both familiar and new vocabulary. Children's spelling strategies showed that they were actively involved in working through the similarities and differences between the two languages. They used their own pronunciations and their knowledge of letter and letter/sound correspondences in both languages to negotiate spellings in English. Spanish rules for spelling dominated when the children were working on new words, words for which the English and Spanish pronunciations were close, or where the English letter or sound did not exist in Spanish. Although many invented spellings did occur, much of the writing contained conventional English spellings.

Cashion, Marie, & Eagan, Ruth. (1990). Spontaneous reading and writing in English by students in total French Immersion: Summary of final report. *English Quarterly, 22 (1&2)*, 30-44.

Examines, within a case study, how children learn to read and write in the first language when they are immersed in a second language-learning environment. Subjects were 6 boys and 6 girls (ages 5 and 6) enrolled in a Canadian French Immersion program. All were of average ability and unable to read English when the study began. Data collected over a three-year period included interview information from the parents, teachers, and children; samples of children's creative writing in both French and English; oral readings in French and English; miscue analyses; and analyses of retellings of materials that were read. At the culmination of the study, 11 of the 12 children were able to read third- and fourth-grade level material with good use of phonic, syntactic, and semantic cues as well as self-monitoring. Only one child read one year below his grade level with a tendency to overrely on phonic cues. All children demonstrated good ability to write creatively in both English and French but produced more in English. Various strategies were used by the children to attain reading and writing skills in English. The main strategy used was questioning of adults, but other strategies included usage of a variety of contextual analysis skills and use of phonics in conjunction with context.

KERN, RICHARD G. (1989, Summer). Second language reading strategy instruction: Its effects on comprehension and word inference ability. *Modern Language Journal*, *73*, 135-148.

Evaluates the effect of explicit instruction in reading comprehension strategies on intermediate-level French students' reading comprehension and inferential ability, and seeks to determine what type of learners derive the greatest benefit from the instruction. The study included 53 university students enrolled in a third semester, intermediate French course. Two treatment groups were established: an experimental group (N = 26) that received explicit instruction in reading strategy use, and a control group (N = 27) that received no explicit instruction in reading strategies but did cover the same material. All subjects were pretested on the ETS Achievement Test in French. Results were used to identify ability groups (low, mid, high) within each treatment condition. The experimental treatment centered around reading skill development in the following areas: word analysis, sentence analysis, discourse analysis, and reading for specific purposes. Five instructors, randomly assigned to five sections, participated in the study. During the semester all instructors attended a weekly two-hour meeting in which course content for the week was agreed on, insuring consistency across sections. The two experimental group instructors periodically observed one another's classes, and observational logs were kept to note instructors' impressions of how well classroom activities were implemented and how well they were received by students. The comprehension and word inference measures used to assess program effects were administered in pre- and poststudy reading task interviews. The findings indicated that the strategy instruction had a strong positive effect on readers' comprehension gain scores. Contrasts nested within ability levels showed a statistically significant difference in comprehension gain between experimental and control subjects within the low ability level, but not within either the middle or high ability levels. Strategy instruction also had a significant effect on students' ability to infer the meanings of unfamiliar words from context; however, none of the contrasts within the three ability levels reached statistical significance.

DUNKEL, PATRICIA, & DAVY, SHERYL. (1989). The heuristic of lecture notetaking: Perceptions of American and international students regarding the value and practice of notetaking. *English for Specific Purposes*, *8*, 33-50.

Compares 54 American and 110 international students enrolled at a research university on their attitudes toward and behaviors during lecture notetaking in English. A survey questionnaire administered at the beginning of the semester assessed students attitudes toward notetaking, techniques used during notetaking, and prior training in notetaking. Chi-square analysis of student responses was used on the 20 forced choice items. The free responses to the remaining four open-ended questions were analyzed for patterns of responses. Attitudinal differences between the two groups were found for the adequacy of notetaking skills, the time pressures felt during the lecture, and the amount of pretraining. Both groups gave similar reasons for taking notes. Variability in the amount of notetaking was influenced by the course content and the presentation of the lecture. Reported differences are discussed in terms of the implications for cross-cultural listeners.

CARRELL, PATRICIA L.; PHARIS, BECKY G.; & LIBERTO, JOSEPH C. (1989, December). Megacognitive strategy training for ESL reading. *TESOL Quarterly*, *23*, 647-

678.

Reports on a study of metacognitive strategy training for reading. Subjects were 26 ESL students (17 undergraduate and 9 graduate) in four Level 4 intensive English classes: 9 were in a class receiving semantic mapping training; 9 were in a class receiving experience-text-relationship (ETR) training; and 3 and 5, respectively, were in control classes. Four days were used for training, with both training groups using the same amount of time. All classes took pre- and posttests consisting of three passages, each about 300 words in length and each followed by three multiple-choice comprehension questions and two open-ended short answer questions. In addition, a partial semantic map, constructed much like a cloze test, was to be completed for two of the passages. Students' learning styles were assessed by means of the Inventory of Learning Processes (ILP), a 62 true-false item instrument divided into four subscales or factors. Controls did not show any significant gain scores between their pre- and posttest results on any of the dependent measures. Each training group demonstrated significant gain scores on two of the four dependent measures. Neither experimental group gained significantly on the multiple-choice questions; both gained significantly on the open-ended questions. The ETR group made the only significant gain on the cloze semantic map items; the semantic mapping group showed significant gains on the open-ended semantic maps. Significant interactions were found between various scales of the ILP and the two training groups.

ROBB, THOMAS N., & SUSSER, BERNARD. (1989, Spring). Extensive reading VS skills building in an EFL context. *Reading in a Foreign Language*, *5*, 239-251.

Describes a study conducted with Japanese college freshmen to determine if a skills-based (textbook program for classwork and homework) or an extensive reading procedure (reading more than 500 pages of home reading and completing lessons of SRA Reading Laboratory materials) is more effective in improving reading comprehension. Four intact groups of freshman English majors were randomly assigned to treatments. Each subject completed the Multiple Skills Series Midway Placement Test. The group receiving extensive reading scored significantly higher on understanding facts, guessing vocabulary from context, and rate. No differences were found on main ideas or inferences. An attitude questionnaire administered at the end of the course suggested that the extensive reading group found their homework more interesting and that they benefited from the writing practice of doing reading summaries. No other differences in attitude were found.

TUDOR, IAN, & HAFIZ, FATEH. (1989, September). Extensive reading as a means of input to L2 learning. *Journal of Research in Reading*, *12*, 164-178.

Explores the effect of a three-month extensive reading program involving the reading of self-selected graded readers with 16 ESL learners of Pakistani origin enrolled in classes in the United Kingdom. Subjects read during sessions and at home, and gave weekly oral reports on what they had read. Subjects were given pre- and posttests in reading and writing taken from the National Foundation for Educational Research, including *Reading Two*, *Reading Three*, *Writing Two*, *and Writing Three*. Comparisons indicated that subjects had improved in both reading and writing, with most improvement coming in the area of writing. Analysis of essay tests suggested posttreatment gains in number of words written and in accuracy of language expression. Vocabulary usage remained relatively unchanged. Students appeared to use simpler and more correct forms of syntactic expression in their second language. The researchers concluded that extensive reading in simplified language graded readers may have potential for L2 students.

WINTER, SAM. (1989, February). Paired reading projects in Hong Kong. *School Psychology International*, *10*, 25-35.

Outlines procedures of paired reading, reviews studies of its effectiveness, and suggests that paired reading may have a role in both the teaching of English as a second language (ESL) and the teaching of reading using other orthographies. Projects relevant to teaching ESL in the Hong Kong education system and using paired reading to enhance the Chinese reading skills of Cantonese-speaking pupils in Hong Kong also are described.

V-13 Tests and testing

V-13a Factors in test performance

Baldwin, R. Scott; Murfin, Pamela; Ross, Georganne; Seidel, John ; Clements, Nancy; & Morris, Carole. (1989, Fall). Effects of extending administration time on standardized reading achievement tests. *Reading Research and Instruction*, *29*, 33-38.

Undertakes an investigation of the effect of time restrictions on the performance of marginal college students on the NDRT. The test was administered to 171 freshmen. Of these, 52 were honors students who scored 1200 or better on the SAT, 54 were U.S. students who had verbal SAT scores below 400, and 65 were international students who were in a developmental reading program because of low scores on the TOEFL. Students were assigned randomly to either a regular treatment group given the NDRT under standardized conditions or to an extended time group. The latter group was given an additional 7 minutes to complete the vocabulary subtest and 10 additional minutes for the comprehension section. ANOVA was used to analyze the data with subtest scores as the dependent variable and student category (honors, developmental, international) and time as the independent variables. An interaction was found between group and rate. The regular treatment format suppressed the scores of developmental and international students. The vocabulary subtest was found to be a speed test for all groups. On the comprehension subtest, it was found that 88% of honors students completed the test under the standardized time conditions, but only slightly more than one-third of each of the other groups did so. For vocabulary, 35% of the honors groups were able to finish under the regular time condition, while none of the developmental students did so. In the extended time condition, all of the honors students and over 80% of the other two groups were able to finish the vocabulary subtest.

Klein, Howard A. (1989, Winter). The effect three testing modes – reading while listening, listening, and silent reading – have on sixth-grade boys and girls. *Reading Improvement*, *26*, 298-304.

Examines the effects of three assessment modes on boys' and girls' ability to make inferences about written social studies material. The 162 sixth-grade children in the final sample were from 10 schools situated in a range of neighborhood types in a western Canadian city. The children were randomly assigned to three modal groups, each containing 27 boys and 27 girls. The Social Studies Inference Test was administered with directions that required children to read the items silently, listen to the items being read, or listen while reading the items. Directions accompanying the latter two modes were recorded in a normal speaking voice with adequate pauses following each item. Data were submitted to a 3(modal groups) X 2(sex) ANCOVA using IQ as a covariate. Findings suggested reading while listening was more effective for inference-making ability than was silent reading alone. Girls in the study tended to be more cautious than boys in taking advantage of the guess option in the test.

Weinberg, Warren A.; McLean, Anne; Snider, Robert L.; Rintelmann, Jeanne W.; & Brumback, Roger A. (1989, June). Comparison of reading and listening-reading techniques for administration of SAT Reading Comprehension subtest: Justification for the bypass approach. *Perceptual and Motor Skills, 68*, 1015-1018.

Administers the advanced level of the SAT Reading Comprehension subtest to 6 girls and 30 boys in grades 7 through 9 who had been classified by scores on the clinical Lexical Paradigm for developmental specific learning disorders; a battery of standardized tests confirmed clinical placement as good or poor readers. All were of normal intelligence, attending a private school for LD students. When the standardized test was administered following the standardized procedures (silent reading), all subjects scored below the 50th percentile. When the test materials were read aloud with the students listening and following along silently, both good and poor readers scored significantly ($p < .001$) higher than with the standardized, silent reading administration. Poor readers were able to perform as well as the good readers had performed on the standardized version. Administration of the two instruments was separated by 68 days. The authors conclude that using the bypass approach might enhance performance and learning on school-related reading tasks.

PRESSLEY, MICHAEL, & GHATALA, ELIZABETH S. (1989, June). Metacognitive benefits of taking a test for children and young adolescents. *Journal of Experimental Child Psychology, 47*, 430-450.

Explores the metacognitive benefits of taking a test by attempting to isolate monitoring of text performance from other forms of monitoring and to determine the effect of taking a test on expectations about future performance. Subjects were 324 children in grades 1-2 (54 males, 54 females), grades 4-5 (55 males, 53 females), and grades 7-8 (47 males, 61 females). Participants were enrolled in one of three schools located in a middle-class, medium-sized city. All were administered a 40-item, multiple-choice vocabulary test developed by selecting both easy and hard items from the PPVT-R. They either predicted their performance on the test before or after it was administered, or they made postdictions about their performance on the test. The data were anlayzed to determine differences in actual performances between age groups and conditions, to establish the actual values of the overall predictions and postdictions about performance, and to analyze the accuracies of these estimations. Analyses revealed improvement in the accuracy of after-test predictions and postdictions compared to before-test predictions at grades 7-8 only. Although all age groups discriminated hard from easy items as they were doing them, such discrimination increased with age. In general, there were few sex differences, although whenever statistically significant sex differences in confidence were detected, boys tended to be more confident than girls.

ROYER, JAMES M.; SINATRA, GALE M.; GREENE, BARBARA A.; & TIRRE, WILLIAM C. (1989, July/August). Assessment of on-line comprehension of computer-presented text. *Journal of Educational Research, 82*, 348-355.

Evaluates two procedures for assessing on-line comprehension, multiple-choice (MC) questions and a sentence verification technique (SVT), as subjects were reading computer-presented text. Participants were 940 Air Force enlistees in their first year of training. Educational backgrounds ranged from completion of seven years of formal education to completion of a master's degree, with 80.1% indicating completion of high school and beyond. Subjects were assigned to one of five treatment groups consisting of alternative assessment techniques: MC questions, SVT test items, one of two mixed MC/SVT question conditions, or the control of no questions. Three passage sets were developed for the study; all passages represented content in the Air Force training curriculum. After reading the text, the subjects took a posttest that consisted of 15 SVT items and 10 MC questions. An examination of the relation between on-line performance and posttest performance indicated that MC items ($r = .743$) were slightly better predictors of posttest performance than SVT items ($r = .583$). The results indicated, however, that SVT items would be the better predictors if test reliability could be improved. Additional MANOVA analyses revealed no evidence of improved learning associated with embedding questions in text.

V-13b Predictive studies

Ferroli, Lou, & Shanahan, Timothy (1987). Kindergarten spelling: Explaining its relationship to first-grade reading. In John E. Readence & R. Scott Baldwin (Eds.), *Research in literacy: Merging perspectives* (pp. 93-99). Rochester, NY: National Reading Conference.

Investigates the nature of the relation between reading and spelling for 35 average ability kindergarten students in a suburban school. Specifically, the researchers were concerned with the practicality of using a developmental spelling test (DST) in kindergarten as a predictor of later reading achievement and as an indicator of emergent literacy. In addition to the Developmental Spelling Test, five other tests were used to examine the reading and spelling knowledge of the children: letter production, concept of word, phoneme awareness, and reading achievement, as measured by the MAT, Primary 1, and a test of recognition of 33 words taken from the readiness and preprimer levels of the basal reading series. Tests were administered twice in kindergarten (March and May) and once at the end of first grade. The MAT was administered only at the end of first grade. Results indicated that the children had little difficulty in taking part in the DST experience. The average score in March was equivalent to a Semiphonetic 1 Stage rating; even spellers at the Preliterate State occasionally were able to correctly represent the beginning sounds of words. The highest correlation coefficient with reading achievement was shown by the Concept of Word test; the DST scores were the overall best predictor of reading, with coefficients that ranged from .59 to .67. When the spelling score was regressed against each of the other measures, the results showed that variance in spelling scores in March is explained to a statistically significant degree by Letter Knowledge and Concept of Word. By May of kindergarten, variance in the spelling score is explained by the Phoneme Awareness Test, while Letter Knowledge and Concept of Word have dropped out of the equation. One year later, Reading Achievement significantly contributes to spelling ability, while Phoneme Awareness continues to contribute (beta weight = .32) toward explaining 50% of the variance in the spelling measure.

Kolstad, Rosemarie K., & Hughes, Selma. (1989, Summer). Reading readiness components yet to be identified. *Reading Improvement, 26,* 186-188.

Assesses 128 kindergarten children in six schools in northeast Texas to determine the relation between developmental maturity and performance on the Concepts about Print Test, the measure of reading readiness. All subjects were from similar socioeconomic backgrounds and all were enrolled in similar readiness programs. Data were tabulated to show total points obtained and gender and CA patterns. Children below 5.7 were considered younger age children and those over 5.7 were considered older age children. No significant differences were found on the test of reading readiness for age groups or for gender.

Harlin, Rebecca, & Lipa, Sally. (1990, Spring). Emergent literacy: A comparison of formal and informal assessment methods. *Reading Horizons, 30,* 209-223.

Compares measures for assessing literacy development of normally developing first graders and high-risk primary grade children. Subjects were 87 children selected from four classes of first-grade students and three classes of high-risk, language delayed primary pupils, ages 6, 7, and 8. Informal instruments administered were the Concepts About Print (CAP) Test, the Writing Vocabulary Test, and the Sentence Dictation Test. The formal assessment battery was the MRT, Levels 1 and 2, and the PPVT. First-grade subjects also took the SAT, Primary I. The CAP correlated significantly with the subtests. Word Recognition, Reading Comprehension, and Word Study, and with the Total Reading Score for first graders. For the high-risk subjects, CAP correlated significantly with the Letter Identification Test. Significant coefficients were found between MRT and SAT scores for the first graders, and between the MRT and the Letter Identification Test for high-risk subjects. The Sentence Dictation Test and the Writing Vocabulary test were the strongest predictors of SAT Total Reading. Sentence Dictation strongly predicted the three reading subtests, while the Written Vocabulary Test strongly predicted the Word Study subtest. The best predictors for first graders were the Sentence Dictation and the Writing Vocabulary Tests. For the high-risk students, the best combination was the CAP and the MRT. For both groups, informal measures were better predictors than standardized measures.

BEAR, DONALD R., & BARONE, DIANE. (1989, Summer). Using children's spellings to group for word study and directed reading in the primary classroom. *Reading Psychology, 10,* 275-292.

Discusses the development and validity testing of an informal, 20 word spelling inventory used to assess pupils' spelling stages and predict end of year reading achievement. A year-long study of the grouping in one multigrade classroom of 24 pupils was presented. The children in the classroom were first through third graders who represented diverse academic abilities and socioeconomic backgrounds. Half of the children had special needs (e.g., bilingual, learning disabled). The spelling test was administered in September to facilitate initial grouping decisions and then in May to assess progress. Regarding the predictive validity of the spelling inventory, it was found that the September assessment accounted for 26% of the May reading achievement variance for first graders (n=7); 62% of the variance for second graders (n=7); and 41% of the variance for third graders (n=9). The probabilities of these percentages approached significance for first and third graders and were significant for second graders.

KAMPWIRTH, THOMAS J., & MACKENZIE, KAREN. (1989). Modality preference and word learning: The predictive ability of the Swassing-Barbe Modality Index and the Illinois Test of Psycholinguistic Abilities. *Educational Research Quarterly, 13*(2), 18-25.

Designs a study to assess the relation between modality styles and reading achievement. Subjects were 51 children from two first-grade classrooms in a predominantly white, middle-class school. Children were administered the visual and auditory modality tests of the Swassing-Barbe Modality Index and the Auditory Sequential Memory and Visual Sequential Memory subtests of the Illinois Test of Psycholinguistic Abilities. In addition, teaching-testing methods were used to determine each child's ability to retain nonsense words when taught by either a visual method or an auditory method. A total of 25 nonsense words were taught in each method. Analyses revealed no significant interaction between modality preference and reading achievement.

EAVES, RONALD C.; DARCH, CRAIG; MANN, LESTER; & VANCE, R. HUBERT. (1990, January). The Cognitive Levels Test: Its relationship with reading and mathematics achievement. *Psychology in the Schools, 27,* 22-28.

Evaluates the relation between the Cognitive Levels Test (CLT) and two tests of academic achievement, the Woodcock Reading Mastery Tests and the KeyMath Diagnostic Arithmetic Test. Subjects were 33 pupils in grades K-2 enrolled in a remedial summer school program. Mean age was 8.0. The CLT correlated with the KeyMath total score (r=.72). Fifty-one of the coefficients of correlation between the two instruments were statistically significant. Twenty-five of the coefficients between the CLT and the WRMT were significant, with the overall coefficient between the two a moderate relation of .55. The WRMT Letter Identification mean was significantly higher than other means, and the WRMT Word Comprehension mean was significantly lower than the other means. The researchers conclude that the findings of so few differences support the validity of the CLT.

WESSON, CAREN; VIERTHALER, JANINE; & HAUBRICH, PAUL. (1989, Fall). The discriminative validity of curriculum-based measures for establishing reading groups. *Reading Research and Instruction, 29,* 23-32.

Investigates the efficiency of a curriculum-based measurement (CBM) technique for forming reading groups within regular education classrooms. Subjects were 24 first-, 19 second-, 26 third-, and 27 fourth-graders in one suburban district school. Each subject was asked to read orally three grade level passages of approximately 200 words from the district basal series. All deviations from print (omissions, substitutions, examiner-supplied words, and mispronunciations) made by each subject within a one-minute time interval were recorded. For each grade level, each child's scores of words correctly read per minute on each passage were rank ordered and means and total scores derived. A chi-square analysis assessed the extent of the relation between rank ordered scores and groups formed by the children's teachers after seven months of instruction. Findings revealed the existence of a significant relation between CBM results and teacher-made grouping decisions.

HALPIN, GERALD; SIMPSON, ROBERT G.; & MARTIN, SHEILA L. (1990, Spring). An investigation of racial bias in the Peabody Picture Vocabulary Test-Revised. *Educational and Psychological Measurement, 50,* 183-189.

Investigates whether the PPVT-R is racially biased in predicting the scores of white subjects and black subjects on the WISC-R. Subjects were 75 adolescents who were experiencing academic and behavior problems at home or school and who ranged in age from 12-2 to 16-11. The sample included 45 males and 30 females, 26 blacks and 49 whites. All had been administered the WISC-R previously. Step-down hierarchical multiple regression was used. Multiple regression equation slopes for blacks and whites were not significantly different. The researchers concluded that the PPVT-R is not differentially valid for blacks and whites. Less than 1% of the variance in WISC-R scores was accounted for by slope bias in the sample. There was intercept bias, indicating that the two racial groups would have different predicted WISC-R scores for the same PPVT-R scores when separate regressions are used. The higher regression line for whites indicated that whites consistently have higher predicted WISC-R scores from the PPVT-R. The researchers suggest that using a common regression equation without race in the model would result in overprediction of WISC-R scores for blacks and underprediction in WISC-R scores for whites.

DWINELL, PATRICIA L.; GINTER, EARL J.; & TAYLOR, WILLIAM DOUGLAS. (1990, February). Developmental factors and performance in remedial courses. *Psychological Reports, 66,* 35-38.

Explores the relation between various developmental factors and academic performance in remedial courses (English, mathematics, and reading) among university students. Subjects were 231 students enrolled in a developmental studies program at a large state university. To measure developmental factors, the Iowa Developing Autonomy Inventory, the Iowa Managing Emotions Inventory, and the Iowa Developing Competency Inventory were administered to all participating students. Students' grades for each remedial course and their overall remedial grade point averages were the indices of academic performance. Regression analyses indicated that various developmental measures accounted for a small effect on performance in remedial courses; the amount of variance accounted for ranged from 2% to 7%.

The percentage of variance accounted for by the three inventories was similar to what could be accounted for by more traditional measures of SAT scores and high school grade point averages. The percentages of variance accounted for by traditional measures ranged form 2% to 10%.

SMITH, M. CECIL. (1990, Spring). The development and use of an instrument for assessing adults' attitudes toward reading. *Journal of Research and Development in Education, 23,* 156-161.

Develops an instrument to assess attitudes of adults toward reading. The instrument, the Adult Survey of Reading Attitudes (ASRA), was adapted from an instrument used with intermediate grade children. It consisted of 40 items drawn from five subscales of the original: Reading Reinforcement, Reading Enjoyment, Reading Anxiety, Reading Difficulty, and Reading Modes. The ASRA was administered to 84 adults, ranging in age from 34-44. Their reading comprehension was assessed using a shortened version of the NDRT. Subjects reported amount of daily reading in terms of hours and also were asked to rate their reading ability on a 5-point scale. Correlation coefficients were computed between the ASRA total scores and the various variables. The highest coefficient, .43, was found with self-rating of reading ability. Other coefficients ranged from .24 with level of occupation to .39 with NDRT scores.

V-13c Cloze testing

JONZ, JOHN. (1990, Spring). Another turn in the conversation: What does cloze measure? *TESOL Quarterly, 24,* 61-83.

Seeks to determine whether the types of deletions made on standard fixed-ratio cloze tests are similar from one test to the next, and what classification system will best account for whatever deletion patterns exist. Eight cloze passages published over the past 15 years were selected and analyzed using a four-category system that estimates the quantity of text required to cue clozure of any one blank, and considers the linguistic category of the deleted word. For the passages analyzed, constraints on cloze response were derived, in order of frequency, from lexical selections, textual cohesion, and syntax. The findings were interpreted as supporting the contention that cloze is sensitive to constraints on response ranging beyond the level of local syntax. It was concluded that the standard fixed-ratio cloze procedure has a high level of sensitivity to intersentential ties and lexical selections, and also that the kinds of language knowledge required to complete cloze tests is practically the same from one test to the next.

MCKENNA, MICHAEL C., & LAYTON, KENT. (1990, June). Concurrent validity of cloze as a measure of intersentential comprehension. *Journal of Educational Psychology, 82,* 372-377.

Assesses the validity of cloze as a measure of intersentential comprehension using a series of three experiments. In each study, subjects were heterogeneously grouped fifth-grade pupils and numbered 97, 52, and 132, respectively. In Experiment 1, two passages were constructed, one expository and one narrative, and converted into 50-blank cloze tests. Each cloze test was followed by 15 multiple-choice comprehension items, composed so that information from at least two sentences was necessary to answer them. A total of 90 children finished all aspects of the testing and were divided into a low, middle, and high group on the basis of cloze test performance. The extent to which pupils integrated information across sentence boundaries during the cloze task was reflected significantly in their cloze scores. Experiment 2 tested whether scrambling the texts affected intersentential comprehension.

Two groups of fifth graders, equal in reading ability, were exposed to scrambled and original versions of the same texts used in Experiment 1. Mean scores on the cloze intersentential test favored the subjects who had read the original passages. Experiment 3 tested whether the results of the initial experiment were artifactual. Subjects took the cloze tests but were not given the intersentential comprehension test until a week later after reading the intact passage. Intersentential scores varied significantly among cloze performance groups, indicating that the findings of Experiment 1 were not artifactual.

Sciarone, A.G., & Schoorl, J.J. (1989, September). The cloze test: Or why small isn't always beautiful. *Language Learning, 39,* 415-445.

Investigates the number of items cloze tests should contain to be regarded as parallel, when cloze is used for a test of language proficiency. Two 200-item cloze tests were constructed over Dutch text. Tests differed only in their second halves, with one version having a deletion one word behind the deletion of the other version. Versions were administered to Indonesian learners of Dutch, 38 taking one version and 36 the other. Analyses of subjects' scores on various subsets of 50, 75, and 100 items suggested that the required minimum to make the tests parallel varies with the scoring method used. Scoring with exact-word replacements, tests should contain a minimum of 100 blanks. If tests were scored to accept words which fit syntactically and semantically, but were not the exact word, 75 blanks were the minimum. Following the conventional procedure of using only 50 blanks produced tests that were not sufficiently parallel. Reliability coefficients dropped to well below .70. The tests were then administered to two groups of native speakers, n=20, and n=19, to investigate validity for L2 proficiency tests. Performance suggested that on a mutilated text about a familiar subject, the proportion of acceptable responses came close to 100%, and exact responses ranged from 74 to 82.

Jacobson, Jeanne M. (1990, January). Group vs. individual completion of a cloze passage. *Journal of Reading, 33,* 244-250.

Compares cloze performance when students complete a cloze passage, first individually, and then with a small cooperative group, to see the relation between individual and group scores and to determine if group interaction affects group score. Subjects were 25 graduates and 30 undergraduates enrolled in an education course which included cooperative learning as a part of course structure. The cloze passage was an article from a recent professional journal. Only exact responses were credited. Each individual and group cloze score was categorized as at the frustration, instructional, or independent level. For 52 of the 55 students, group score was higher than individual score. Individual scores ranged from instructional to frustration level, but all group scores were in the independent range. In only two groups did the highest scoring group member outscore the group product. Significant differences were found in the scores of graduate student groups and undergraduate groups, with undergraduates scoring considerably higher on group work than on independent work. Item analyses suggested that groups frequently came up with correct answers where all individual responses had been wrong. Groups also produced more responses than individuals, as individuals left more items blank. Group work seemed to eliminate idiosyncratic and illogical responses and to focus on processing larger chunks of print and clues throughout the passage.

V-13d Test uses and purposes

Johns, Jerry L., & Magliari, Anne Marie. (1989, Summer). Informal reading inventories: Are the Betts criteria the best criteria? *Reading Improvement, 26,* 124-132.

Reports the results from a study of 83 pupils (43 in grades 1-3; 40 in grades 4-6) to investigate what word-recognition criteria best fit the instructional level on informal reading inventories (IRIs). Procedures and findings were compared with two previous studies to see the impact of procedures on the criteria established. Data came from four commercially-published IRIs administered by 51 different student examiners. Miscues recorded were repetitions, omissions, reversals, insertions, substitutions, and words pronounced by the examiners. In Phase 1, using one set of procedures, primary readers had an average word-recognition score of 89.69% and intermediate readers had an average of 93.35%, higher percentages than previous results. In Phase 2, the highest level where pupils met or exceeded 70% comprehension was chosen. Word recognition scores were 91.02% for primary and 94.13% for intermediate grades. Phase 3 only counted miscues that affect meaning. Primary percentages increased from 90-95% and intermediate percentages from 93-97%. Applying Phase 2 procedures, word recognition percentages increased from 91-96% for primary and from 94-98% for intermediate. Findings suggest that pupils in grades 1-3 often achieve percentages below Bett's 95% in word recognition. If only significant miscues are counted, pupils achieve word recognition scores that meet or exceed Betts' criteria. The researchers suggest rethinking the use of Betts' criteria for primary students.

Duffelmeyer, Frederick A.; Robinson, Susan S.; & Squier, Susan E. (1989, November). Vocabulary questions on informal reading inventories. *The Reading Teacher, 43*, 142-148.

Investigates the vocabulary questions on informal reading inventories (IRI) to determine: (1) if the targeted words are unfamiliar to the examinees and would require the use of context clues; and (2) if the context surrounding the word would be helpful for determining word meaning. Forty-four third-graders and 45 fourth-graders were administered three tests: (1) a cloze test; (2) a vocabulary test in isolation with vocabulary questions taken from three commercial informal inventories, and (3) a vocabulary in context test consisting of the vocabulary questions and accompanying selections that were consistently answered incorrectly during the test in isolation. Scores on the vocabulary in context test were analyzed in light of performance on the cloze test to determine if subjects skilled in context clues (high cloze scores) found the context of the targeted words more helpful than did those less skilled. Scores on the Reading Comprehension subtest of the ITBS were used to corroborate cloze scores. Data suggest two out of every three vocabulary questions did not have sufficient passage independence to establish meaning unfamiliarity. Of the one-third with acceptable passage independence, the context frequently did not provide enough information to infer meaning. Context in which the words occurred also was not sensitive to differences in student ability. The researchers conclude that most IRI vocabulary questions were not functioning properly.

Bieger, Elaine M. (1989, Fall). The Degrees of Reading Power—a testing and teaching tool? *Reading Improvement, 26*, 203-207.

Asks five questions about the DRP. (1) Is the DRP a testing and teaching tool? (2) Is the DRP a valid reading assessment? (3) Should the test be used for third grade? (4) Does the *Readability Report* reflect the test scores? and (5) Does the DRP correlate with other standardized reading tests? Using data collected in New York City schools, the investigator concludes that the answers to all five questions appear to be negative.

Carver, Ronald P. (1990, March). Rescaling the *Degrees of Reading Power* test to provide valid scores for selecting materials at the instructional level. *Journal of Reading Behavior, 22*, 1-18.

Explores the existing DRP Ability test scores and their validity claims, providing evidence that the test scores are not valid, particularly at the upper and lower levels, for selecting materials at that instructional level of difficulty. Procedures for rescaling the DRP Ability instrument equating DRP Difficulty scores to grade equivalent scores obtained from the Rauding Scale of Prose Difficulty are described. Subjects took the Accuracy Level Test (ALT), a 10-

minute test including 100 vocabulary items ranging in difficulty. Scores on the ALT are comparable to the Rauding Efficiency Level Test. Subjects were 102 seventh- and eighth-graders who took all tests involved in the study. After rescaling, evaluations of new DRP scores with data collected from different school districts suggest that there is a very small mismatch between the average difficulty of the books used in each grade and the average ability of children in that grade. New DRP Difficulty grade equivalent units closely match the grade, providing scores that seem to be more valid for selection of materials.

EAVES, RONALD C.; DARCH, CRAIG; & HAYNES, MAUREEN. (1989, July). The concurrent validity of the Peabody Individual Achievement Test and Woodcock Reading Mastery Tests among students with mild learning problems. *Psychology in the Schools, 26,* 261-266.

Compares scores on the PIAT and WRMT across three grade clusters. Included in the study were 131 children who were divided into three clusters: grades 1-2, grades 3-4, and grades 5-8. All were enrolled in an academic summer program; 42% were classified as LD, 10% as mentally retarded, 4% as having emotional problems, and 44% as competent to attend regular classrooms. Coefficients between the two PIAT scores (Reading Recognition and Reading Comprehension) and three WRMT scores (Word Identification, Passage Comprehension, and Total Reading) ranged between .63 and .93. Coefficients among test scores were higher for blacks than for whites, higher for males than for females, and higher for lower SES children than for higher SES children. Comparisons indicated that WRMT scores were significantly lower than PIAT scores, particularly at the earlier grades.

SPRING, CARL, & FRENCH, LISA. (1990, January). Identifying children with specific reading disabilities from listening and reading discrepancy scores. *Journal of Learning Disabilities, 23,* 53-58.

Validates an instrument used to identify children with specific reading disabilities by identifying discrepancies between reading and listening comprehension scores. The Reading Comprehension subtest of the PIAT was modified so that odd-numbered sentences were read by an examiner and even-numbered sentences were read by the subjects. Subjects were 15 disabled readers and 15 nondisabled readers matched on age, sex, and numbers of years in school. The fourth-, fifth-, and sixth-graders were tested individually with the WRAT-R and the modified and original PIAT Reading Comprehension subtests. A significant group main effect favored nondisabled readers. A modality main effect showed listening scores higher than reading scores. The group by modality interaction was significant. Reading comprehension scores of the disabled group were lower than those of the nondisabled group, while listening scores did not differ significantly by group. Mean discrepancy scores of the two groups were compared, and the difference between the discrepancy scores of the two groups was significant. The researchers conclude the appropriateness of the method as a substitute for the traditional method of identifying discrepancies.

MCKENNA, MICHAEL C., & KEAR, DENNIS J. (1990, May). Measuring attitude toward reading: A new tool for teachers. *Reading Teacher, 43,* 626-639.

Gives information relative to the development of the Elementary Reading Attitude Survey (ERAS), a 20-item instrument designed to assess attitude of elementary pupils toward reading. Reliability of the instrument, established on a sample of 18,000 children in grades 1-6, ranged from .87 to 89. Two aspects of attitude are assessed: attitude toward recreational reading and attitude toward academic reading. Data on validity also are presented. A copy of the ERAS, now in public domain, is included along with suggestions for use and interpretation.

Greene, Barbara A.; Royer, James M.; & Anzalone, Stephen. (1990). A new technique for measuring listening and reading literacy in developing countries. *International Review of Education, 36*(1), 57-68.

Evaluates the validity of the Sentence Verification Technique (SVT) as a measure of reading comprehension for Grenadian pupils. Subjects were 275 students at standard 3, 280 at standard 4, and 231 at standard 5, with high, middle, and low ability groups identified at each. In September and June, respectively, pupils at each standard were asked to read pre- and posttest sets of six passages (two at below grade level, two at grade level, and two at above grade level) and for each passage, to choose test sentences that had same and different meanings than sentences in the original passages. Cronbach's coefficient alpha was used to evaluate the reliability of the SVT with results of .76, .78, and .83 at standards 3, 4, and 5, respectively. Statistical analyses conducted to determine SVT validity indicated that performance declined significantly as passage difficulty increased. Pupils with high ability had significantly higher scores on the SVT than did pupils with middle and low ability, respectively. Moreover, children in higher standards excelled over those in lower standards on selected passages. Results of various analyses indicated the SVT is both reliable and valid as a measure of reading comprehension for Grenadian children.

Carlisle, Joanne F. (1989, Winter). The use of the sentence verification technique in diagnostic assessment of listening and reading comprehension. *Learning Disabilities Research, 5*, 33-44.

Asks whether an experimental test of listening and reading, the sentence verification technique (SVT), would distinguish good and poor comprehenders as well as a standardized comprehension test. The seventh-grade subjects were 41 good comprehenders and 19 poor comprehenders. The two groups differed significantly on raw scores on the GMRT subtests. In addition to the GMRT, subjects were given the experimental test, Profiles in Listening and Reading (PILAR). Good comprehenders' scores on the three subtests of the PILAR (listening, reading, and word recognition) were higher than those of poor comprehenders. The PILAR correctly classified 94.6% of the good and poor comprehenders, and was similar to the GMRT in the ability to discriminate between the two groups.

Hall, Richard H.; Dansereau, Donald F.; & O'Donnell, Angela M. (1989, Spring). Subjective graphing of metacognitive, affective, and social processing: A psychometric analysis. *Journal of Experimental Education, 57*, 271-284.

Establishes the psychometric properties of a subjective graphing measure designed to assess college students' ongoing processing while studying. This experiment focused on three categories of processing behaviors: metacognitive, affective, and social. Data collection involved having students graph responses/reactions to specific questions regarding the three categories of behaviors. In total, 11 graphs were needed to address these categories. Participants were 93 college students recruited from undergraduate classes and assigned to one of three study conditions: scripted dyads (SD, n=30), unscripted dyads (USD, n=32), and unscripted individuals (UI, n=31). The SD Group was trained to apply a specific learning strategy in a cooperative learning setting; other groups were directed to study using whatever strategy they felt was most effective. Two sets of passages were presented for study in two stages; the 11 subjective graphs were completed following each study stage. The internal structure, reliability, and validity of this assessment tool were tested. Results indicated that the measure could be described adequately by three relatively independent, replicable factors: (1) feelings about self (metacognitive states), (2) feelings about partner (social states), and (3) anxiety/nervousness (affective states). The three factors were representative of the three behavior categories the graphs were purported to measure. Subjective graphing was found to be reliable in terms of both internal and test-retest analyses. Coefficient alphas for the initial and transfer stages for the feelings about self factor were .93 and .97, respectively; for the feelings about partner factor, .95 and .97; and for the anxiety/nervousness factor, .90 and .92. The validity analyses indicated that subjective graphing was sensitive to both performance and situational manipulations as long as students were given ample opportunity to become acquainted with the measure.

V-14 Instructional time

BULLOCK, TERRY L.; LAINE, CHESTER H.; & SLINGER, EDITH. (1990, Spring). Reading instruction in secondary English and social studies classrooms. *Reading Research and Instruction, 29,* 27-34.

Examines the amount of time devoted to three types of instruction in five English and seven social studies classes, grades 9-12, from a midwestern urban high school. Sixty-five class periods averaging 55 minutes each were observed using a time-sampling procedure. The instructional activities observed were coded into content reading instruction, nonreading content instruction, and noninstruction. The content reading instruction observed was further divided into three types based on the degree of interaction among the teacher, student, and materials. Results indicated that 65% of the class period was spent on content reading instruction, 20% on nonreading instruction, and 15% involved no instruction. Most of the content reading instruction (53%) focused on reviewing and assessing assignments and teaching skills in isolation. Silent reading accounted for 24% of the reading instruction noted. Other reading activities observed were directed reading activities and providing background for assignments. Implications for teacher training programs are discussed.

V-15 Technology and reading instruction

WEBER, WILLIAM R., & HENDERSON, EDMUND H. (1989, Spring). A computer-based program of word study: Effects on reading and spelling. *Reading Psychology, 10,* 157-171.

Seeks to determine if a computer-based word study method, emphasizing automaticity of response, improves the word recognition, spelling, and oral reading performance of elementary pupils. The sample of 31 subjects comprised 11 fifth-graders, 10 fourth-graders, and 10 third-graders, all of whom had met a criterion of 50% accuracy on a fourth-grade spelling inventory. The children were further pretested in word recognition, spelling, and oral reading using the McGuffey Reading Center Informal Test of Word Recognition, the Nonsense Word Recognition Test, the Qualitative Inventory of Word Knowledge, the Nonsense Spelling Test, the SAT, the Speed of Writing Test, and a measure of rate and accuracy of oral reading. Pupils were randomly assigned to three treatments so that one-third of each grade level was randomly assigned to each group. Group 1 pupils used the computer word study program 10 minutes per day for 60 days; Group 2 pupils used the program for only 30 days; and Group 3 pupils received regular classroom instruction. The word-study activities required pupils to give selective attention to specific orthographic features. The pupils systematically sorted or categorized words according to common features and the sounds they represented. Posttesting of all pupils, using the same instruments applied in pretesting, occurred at the end of the 60-day training period. Performance was analyzed initially using a three-group ANOVA conducted on the difference scores (for pretest-posttest 1). Parallel analyses were conducted for the posttest 1-posttest 2 and the pretest-posttest 2 difference scores.

Results showed that the computer-based word study training led to significant gains in flash word recognition, untimed recognition of nonsense words, spelling of nonsense words, performance on a standardized spelling test, and performance on a timed oral reading passage.

Salomon, Gavriel; Globerson, Tamar; & Guterman, Eva. (1989, December). The computer as a zone of proximal development: Internalizing reading-related metacognitions from a reading partner. *Journal of Educational Psychology, 81*, 620-627.

Tests whether the metacognitive-like guidance of a computer program could be internalized and used by pupils once that guidance was no longer available. The program was designed to aid adolescent readers to comprehend texts better by presenting four basic reading principles: generation of inferences, identification of key sentences, generation of images, and development of intermediate summaries. Subjects were 74 seventh-grade pupils from a junior high school in a suburb of Tel Aviv, who were randomly assigned to three treatment groups. Three versions of a computer program were designed and served as the basis for the treatments. The three versions comprised the same 11 texts (short stories, parables, articles) that were read over three sessions. The Reading Partner group, the main experimental group (n=25), used a program version that presented the four reading principles and metacognitive-like questions during the reading of the 11 texts. Their performance was compared with a second group (n=25) using a version that presented the texts with factual and inferential questions, and to a control group (n=24) assigned a version that presented only the texts. All subjects were pretested with the Israeli Standardized Reading Comprehension Test (ISRCT). Ten days following the last training session, subjects received a second form of the ISRCT and a metacognitive reconstruction task consisting of two open-ended questions that asked subjects to suggest ways for both a good reader and a poor reader to improve his/her reading skills. One month following training, an essay writing task was given. Also collected for each subject were math and language grades, amount of reading time during each computer session, and self-reports of mental effort expenditure collected at the end of each reading session on a three-item questionnaire. Analyses of treatment effects revealed that the Reading Partner group reported expending more mental effort in the process, showed better metacognitive reconstruction, and improved significantly more in the later reading comprehension and in the quality of their written essays than did the subjects in the other groups. Improvements in reading and writing were statistically accounted for by the subjects' ability for metacognitive reconstruction.

Horton, Steven V.; Boone, Randall A.; & Lovitt, Thomas C. (1990, May). Teaching social studies to learning-disabled high school students: Effects of a hypertext study guide. *British Journal of Educational Technology, 21*, 118-131.

Investigates the effects of a computer-based study guide using hypertext software to increase comprehension of textbooks. Subjects were four LD students enrolled in a remedial high school social studies class. Data were collected from oral reading rate while reading the textbook passages, average facts recalled from three passages in the text, and total reading percentile scores on the MAT. Students completed the hypertext study guide for a passage and then were given a 15-item written test. Immediately following the three lessons and again 30 days later, they were given a 45-item posttest. Included were 15 control questions that were not found in the computer treatment. There was a significant gain for students on computer items from pre- to posttest and from pretest to retention test. No significant change was found for control items across measures. Additional analysis revealed a consistent relation between gain scores on computer items, reading time on computer, and the number of instructional cues needed by subjects.

KINCADE, KAY M.; KLEINE, PAUL, F.; JOHNSON, IMOGENE T.; & JACOB, CLYDE T., JR., (1989, Fall). Individualizing a college reading course with the aid of computers. *Journal of College Reading and Learning*, *22*,(1), 71-80.

Reports on the effectiveness of integrating CAI into an existing reading improvement course for college students and examines individual characteristics influential in the success of the course. The sample consisted of 423 students from a southwestern university enrolled in a two-credit basic reading skills course. The software materials selected included a vocabulary development program and two comprehension programs. All software was supplemented with listening tapes, learning kits, and workbooks. Anecdotal records of teachers and participating students were positive concerning the addition of the CAI element. Higher achieving students had a greater tendency not to complete the course. Significant gains were reported for all subtests and total scores of the NDRT, but size effects varied. Small gains were reported for student vocabulary scores, while moderate gains were made in the area of reading comprehension. The program had its greatest impact on reading speed. Single order and multiple regression analysis were employed relating the reading comprehension scores with the ACT, entry age, gender, and class status. These variables did not serve as adequate predictors of success in the course and achievement gains in reading comprehension with less than 2% of the variance accounted for.

ADAMS, SUSAN MCINTYRE, & MIKULECKY, LARRY. (1989, Fall). Teaching effective college reading and learning strategies using computer-assisted instruction. Journal of College Reading and Learning, *22*(1), 64-70.

Evaluates the effectiveness of two CAI programs for improving textbook reading abilities. Subjects were 101 biology students and 104 psychology students who were matched on SAT verbal scores, high school rank , and current GPA, then divided into treatment and control groups. Treatment group students interacted with three lessons from each program for three weeks followed by the corresponding chapter exam, and a posttest one week later to test whether the strategies modeled transferred to new materials. The control group read the chapters and took the immediate and transfer examinations. For both disciplines, the treatment group performed significantly better than the control group on the modeled chapter tests, and a week later on new material without the aid of the computer. Student interviews indicated a positive reaction to the programs used, although several strategies modeled in the software were reported having been used before.

WEPNER, SHELLY B.; FEELEY, JOAN T.; & MINERY, BONNIE. (1990, February). Do computers have a place in college reading courses? *Journal of Reading*, *33*, 348-354.

Evaluates the effectiveness of a software program designed to increase reading efficiency. Subjects were 66 college freshmen from four sections of a reading and rate improvement course. Two of the sections (30 students) were randomly designated to serve as the experimental group; the other two sections (36 students) served as controls. Students had borderline scores on the reading comprehension section of New Jersey's mandated basic skills test for all entering freshmen. All sections used the same materials; the only difference was in the mode of delivery of those materials designed to improve rate. The experimental group worked on computers with a rate program; the control group used the materials in text form. One 75-minute period per week was spent using the rate improvement materials. To examine the effects of training in the two modes, pre- and posttest scores on the Fast Reading section of the SDRT were subjected to ANCOVA procedures; pretest scores served as the covariate. To assess attitudes toward using a computer program, a course evaluation form, with embedded items about the rate component in general and the computer feature specifically, was administered. The analysis of test data revealed that the experimental group achieved statistically significant gains in comprehension and rate. However, with regard to attitude, the control group means were higher than those of the computer group on all aspects of the rate component. When asked if they would elect to use the computer for general reading and rate development, students indicated only tentative enthusiasm for computers: 30% to 40% reported "yes," approximately half said "maybe," and the remainder indicated "no."

FUCHS, LYNN S.; FUCHS, DOUGLAS; & HAMLETT, CAROL L. (1989, November/December). Monitoring reading growth using student recalls: Effects of two teacher feedback systems. *Journal of Educational Research*, *83*, 103-110.

Compares two types of measurement procedures for their ability to accurately monitor pupil growth and for providing information for modifying instruction in reading. Twenty-two special education teachers were randomly assigned to one of two feedback groups: a Performance Indicator (PI) feedback group where the teacher monitored pupil performance with graphs of scores on a story recall measure; or the Performance Indicator with Diagnostic (PI + D) analysis feedback group in which teachers received graphed performance on the recall measure along with a structured analysis of story components included in the recalls. All graphs and diagnostic analysis were provided via a computer software program and student database. The teachers used the monitoring system for 15 weeks with 41 handicapped children from grades 3-9. Whether the feedback procedures enabled the teacher to plan better instructional programs was measured by the number of goal changes for each child, the goal ambitiousness, the number of recall elements addressed during instruction, and the number of instructional packets of specific skills used during instruction. Results indicated that teachers in the PI+D group identified a greater number of story elements for instruction and employed more instructional packets. Achievement effects are reported as becoming stronger as the index became more closely related to the management procedures.

GOLDEN, NANCY; GERSTEN, RUSSELL; & WOODWARD, JOHN. (1990, January). Effectiveness of guided practice during remedial reading instruction: An application of computer-managed instruction. *Elementary School Journal*, *90*, 291-304.

Evaluates the effectiveness of computer networking in providing guided practice in the teaching of two reading comprehension strategies. Thirty-one remedial readers from grades 6, 7, and 8 were matched on reading ability and randomly assigned to a guided practice group or a control group. In both groups, a lecture-demonstration format was used for the first 20 minutes to teach QAR2 (a strategy emphasizing the analysis of question-answer relationships) and how to make rule-based inferences. The guided practice group then was presented with 15-20 questions on an overhead which pupils answered using individual keypads hooked into the networking system. Performance on each question was displayed on the teacher's monitor. The teacher then retaught or corrected scores less than the proficiency level. The comparison group answered the same questions but in a worksheet format. Feedback for this group was given the following day. Mastery was assessed the day following and two weeks later with two paper-pencil multiple-choice tests developed and standardized by the researchers. Findings indicate that guided practice had a positive effect in the instruction of rule-based inferences but no effect on the QAR2 technique. These effects are discussed in relation to the task demands of the strategies taught.

DIVINE, KATHERINE P., & WHANGER, RICHARD E. (1990, June). Use of a computer learning laboratory with at-risk high school students. *Educational Technology*, *30*, 46-48.

Reports on the effectiveness of using a computer learning laboratory with at-risk students in grades 9-12. A sample of 50 students was randomly selected from a target population of 500 referrals exhibiting poor attendance, a history of disruptive behavior, and low academic performance. In the computer laboratory, students received individualized instruction through exposure to two computer programs. Matched sample t-tests on mean differences between pre- and posttest measures for reading comprehension, language arts, and the strength of the writing style resulted in significant results at the .05 level.

MARKHAM, PAUL. (1989). Effects of contextual versus definitional computer-assisted vocabulary instruction on immediate and long-term vocabulary retention of advanced ESL students. *Educational Psychology*, *9*(2), 121-126.

Investigates the effects of definitional information versus contextual information in computer-assisted vocabulary instruction with advanced ESL students. A group of 58 advanced ESL students participated in the study and were randomly assigned to treatment groups. The first group experienced one hour of practice with a definitional (multiple synonym association) CAI vocabulary activity in which 15 items were presented; the second group practiced for one hour with a context-based vocabulary activity involving the identical words. Immediately after completing the vocabulary exercises and four weeks later, each student completed two multiple-choice vocabulary tests. The first involved a synonym-association measure, and the second required students to locate the most appropriate use of the item in a series of complete sentences. Data were analyzed using a one-way ANCOVA with the scores on the vocabulary subtest of the Comprehensive English Language Test serving as the covariate. The findings associated with the immediate-recall vocabulary test were nonsignificant. Students in the context-based treatment performed significantly better on the context-embedded dependent measure on the delayed recall test.

V-16 Role and effects of instructional research

SWAFFORD, JEANNE, & ALVERMANN, DONNA E. (1989, DECEMBER). Postsecondary research base for content reading strategies. *Journal of Reading*, *33*, 164-169.

Establishes the research base for content area reading strategies at the postsecondary level and compares the results with secondary school data. The comprehension and vocabulary strategies were determined by identifying recommendations of six content area methods texts and resulted in a list of 13 strategies. The literature search, conducted by identifying studies that contained 1 or more of the 13 strategies in their titles and also involved postsecondary students, yielded 82 studies for review. All articles and dissertation abstracts were read and pertinent information was categorized: type of reader, kind of text, length of text, dependent measures, and the strategy's effectiveness or ineffectiveness. Study results were further examined for evidence of patterns of effectiveness. Tabulated results indicated that 50% of the 82 studies involved advance organizers. The use of text structure was the next most frequently occurring strategy, observed in 25% of the research. The remaining strategies, in descending order of attention, were the structured overview, graphic organizer, semantic mapping, study guide, and directed reading thinking activities (DRTA). A composite of the organizer strategies (advance organizer, structured overview, graphic organizer, and semantic mapping) comprised 70% of the research base. Overall, the studies reported 56% of the strategies to be effective and 44% to be ineffective. While the structured overview was used in 88% of the studies involving college developmental readers, it was effective in only 57% of the investigations. For the studies focusing on text structure and including low readers or college developmental reading students, four studies were effective and two were ineffective. Expository text accounted for the most studies (80%); however, no pattern of effectiveness for particular kinds of expository text were discovered. The data set was found to resemble the research base for secondary school students in several ways: more effective than ineffective strategies; organizers and the use of text structure were more frequently researched; expository text was used almost exclusively; neither data set showed a clear pattern of one strategy being more effective than another for students of various reading ability levels. Areas of difference between the two data sets included finding different proportions of effective studies with various strategies. One clear difference was in the use of advance organizers with math texts which were found ineffective with secondary students and effective with college students.

ELDREDGE, J. LLOYD. (1988, Fall). Improving the reading comprehension skills of poor readers. *Reading Horizons*, *29*, 35-42.

Identifies instructional techniques that have been successful in helping students with poor decoding skills improve their comprehension. A review of the literature revealed five techniques that have been successful with poor readers: (1) the Neurological Impress Method; (2) read-alongs with audiotapes; (3) the Assisted Reading Strategy; (4) Repeated Readings; and (5) Dyad Reading. The origin of each technique is explained, the procedures for using it described, and relevant research on its effectiveness is cited.

SEIDENBERG, PEARL L. (1989, Fall). Relating text-processing research to reading and writing instruction for learning disabled students. *Learning Disabilities Focus*, *5*, 4-12.

Addresses issues related to the teaching of reading and writing to LD learners. The findings of text-processing research are presented in relation to text structure concerns and the reading and writing processes. It is then proposed that the concepts derived from the literature can provide a basis for the design of better instructional programs for LD individuals.

VI. Reading of atypical learners

VI-1 Visually impaired

COTTON, M.M., & EVANS, K.M. (1990, April). An evaluation of the Irlen lenses as a treatment for specific reading disorders. *Australian Journal of Psychology*, *42*, 1-12.

Examines personality characteristics of "scotopic sensitive" (ss) children with specific reading difficulties (SRD) and children with similar reading difficulties not diagnosed as ss. Additionally, determines whether the Irlen lenses prescribed for children diagnosed as ss lead to improved reading scores and are associated with superior rates or accuracy compared with other lens conditions or a no-lens control condition. The ss syndrome is described as a retinal defect involving a number of visual symptoms identified by the Irlen Differential Perceptual Scale (IDPS), a questionnaire addressing six areas: visual resolution, ability to sustain focus, depth perception, span of focus, peripheral vision, and eye strain. Colored lenses, the specific tint of which remove the symptoms of ss, are then prescribed for individuals evidencing the ss syndrome. Subjects for the study were 60 children, ranging in age from 8-1 to 15-11, all of whom had been referred for screening as a result of reading difficulties. As a result of IDPS testing, 38 were diagnosed as ss and 22 as non-ss. No significant differences were noted between the two groups for CA or RA (Neale Analysis of Reading Ability). No significant differences were noted on the Neale between pre- and postlens prescription with the Irlen lens. Performance with the Irlen lens also was compared with that for random color, plain lenses, and a no lens control condition and showed no significant differences in reading performance or performance on an eye-hand or depth perception task. Significant differences were found between the two groups in various personality measures administered, with ss children tending to be more neurotic, more subjected to external rather than internal control, more anxious, and with lower self-concepts than non-ss children.

MILLAR, SUSANNA. (1990, May). Articulatory coding in prose reading: Evidence from braille on changes with skill. *British Journal of Psychology, 81,* 205-219.

Tests, in two experiments, the role of speech-based strategies in prose reading with braillists at different levels of proficiency. Experiment 1 assessed speech-based strategies in normal prose reading by competent braillists who differed in speed. The 21 subjects, who were enrolled in schools and colleges for the blind, were placed into three proficiency groups based on speed and comprehension scores. Group 1 were considered very proficient readers, Group 2 average, and Group 3 as slow readers in terms of syllables per minute (spm). There were five experimental conditions: reading aloud control, silent reading control, articulatory suppression, irrelevant movement during silent reading, and irrelevant movement during oral reading. In individual testing situations, subjects read five self-contained passages taken from novels, with stories counterbalanced across the five experimental conditions so that each story was tested an equal number of times under each of the five conditions. Results indicated that articulatory suppression reduced comprehension significantly compared with the other conditions. Spm was not significantly reduced under articulatory suppression, even though 2 subjects were unable to read in that condition. Experiment 2 involved easy texts and 20 normal braille readers, 5 of whom were young beginning readers and 15 of whom had taken part in the previous experiment. Subjects were placed into four proficiency groups. Proficiency levels interacted significantly with experimental conditions for both speed and comprehension. The ablest readers showed no effect of articulatory suppression on either speed or comprehension; beginners showed significantly reduced speed and comprehension under articulatory suppression. For middle groups, articulatory suppression had some effect on comprehension but appeared to speed rather than to slow reading.

SCHOLES, ROBERT J., & WILLIS, BRENDA J. (1989, Spring). Invisible speech: Oral language skills in blind braille readers. *Interchange, 20,* 1-13.

Explores two facets of the relation between oral language skills and literacy in native English-speaking braille users. Subjects were 15 high school students who were congenitally totally blind. They were orally administered three tests of oral language skill: phoneme deletion, morphological analysis, and sentence comprehension. A control group of 80 sighted undergraduates also was administered the items. Of the three types of language skills assessed, differences between the two groups were found only in the ability to perform morphological analyses. Blind subjects performed well below university students on this skill, and the distribution of responses was different. For controls, the base stem morpheme was always the most frequent response, while for the blind subjects the most common response tended to be different in some instances. Further analysis indicated that ethnicity had the largest effect on oral language skills, especially on the phoneme deletion test. Reading comprehension scores were related to oral language skills, particularly for phoneme deletion and sentence comprehension.

TOKUDA, KATSUMI. (1989, November). Content and construction of "read-by-touch" picture books for instructing visually handicapped children. *Science of Reading, 33,* 88-95.

Determines characteristics of the most effective "touch-to-read" books for visually handicapped children. About 120 such picture books were produced by groups of Japanese college students and given to schools for visually handicapped children. Using recorded observations of children, opinions of their teachers, and opinions of the children themselves, seven most effective characteristics were determined and listed.

KALLONIATIS, MICHAEL, & JOHNSTON, ALAN W. (1990, January). Visual characteristics of low vision children. *Optometry and Vision Science, 67*, 38-48.

Conducts a retrospective survey of pediatric clinical files from a low vision clinic in Melbourne, Australia, to review visual characteristics of children with low vision. Included in the study was a comprehensive reading assessment. The review included 429 files; of these, a classroom evaluation was made of 56 children who had attended the low vision clinic as well as 10 who had not attended the clinic but had undergone a visual assessment through the school. The major cause of low vision was determined to be congenital or inherited conditions. Reading performance was assessed with the Edwards reading test. Children were divided into three groups: 36 children assessed at their expected reading level, 15 children assessed at a level below their expected level as recommended by their teacher, and 11 children over 13 years of age who were assessed using a text from a lower reading level. Although all children in the first group had satisfactory accuracy on the reading test, only 33% had satisfactory reading time and 67% showed satisfactory comprehension. Figures for Group 2 tended to be lower, while of Group 3, only 18% had satisfactory comprehension. The correlation coefficient between distance vision and reading rate was determined to be -.23, while that between habitual near visual acuity and rate was -.58. The authors recommend greater emphasis on reading evaluations in routine low vision examinations.

HELLER, MORTON A.; NESBITT, KIMBERLY D.; SCROFANO, DANETTE K.; & DANIEL, DENELL. (1990, January). Tactual recognition of embossed Morse code, letters, and braille. *Bulletin of the Psychonomic Society, 28*, 11-13.

Cites three experiments done to evaluate the relative utility of embossed codes. Subjects in all experiments were sighted undergraduates and numbered 20, 12, and 36, respectively. In the first two experiments, stimuli consisted of a series of embossed, printed capital letters along with corresponding braille characters. Observers touched the stimuli without being able to see them while they viewed drawings of the stimuli. They were then to identify which stimulus they were touching. In Experiment 3, Morse code, braille, and embossed, printed capital letters were compared for recognition accuracy and latency. Performance was similar for embossed print capital letters and braille in all three experiments. Recognition accuracy was approximately as high for Morse code as for braille, but the reading of embossed dots and dashes was slower in Experiment 3.

VI-2 Hearing impaired

DOWALIBY, FRED J. (1990, Spring). Adjunct questions in prose: A question position-by-reading ability interaction. *American Annals of the Deaf, 135*, 50-53.

Initiates an investigation of the effects of adjunct questions used with profoundly deaf postsecondary students. Subjects were 78 students at the National Technical Institute for the Deaf who served as paid volunteers. Students were assigned randomly to one of three treatment groups: a no-question control group and prequestion or postquestion experimental groups. Reading test scores were available on the CAT. A pretest was administered to assess knowledge of instructional content. Subjects then were given a prose passage of about 1100 words to read, separated into 10 topical sections. Each section was accompanied by an adjunct and a related multiple-choice question. ANOVA techniques revealed a reading ability-by-question position interaction. Prequestions were most facilitative for low ability readers' subsequent learning, and postquestions yielded the highest score for high ability readers.

STOEFEN-FISHER, JILL M., & LEE, MIN AE. (1989, Summer). The effectiveness of the graphic presentation of signs in developing word identification skills for hearing-impaired beginning readers. *Journal of Special Education, 23,* 151-167.

Notes the effects of the graphic representation of signs on hearing-impaired children's ability to identify printed English words. Subjects were 20 prelingually deaf children, ranging in age from 6 to almost 9 years old. Pupils participated in a word identification task and an immediate retention task. For the former, two sets of word lists were prepared: a list of print plus sign words (PS) and a list of print only (PO) words. The PS list showed the printed English word with the graphic representation of the sign for that word directly above it. One list of retention words was prepared for the immediate retention task and presented in print only. Children were randomly assigned to two groups. One group received the PS word list first, followed immediately by the retention list. Two weeks later, they were given the PO list, followed by that retention list. Lists were reversed for the second group. ANOVA techniques were used to analyze performance on each task under each presentation format. PS scores were significantly higher than PO scores within the word identification task. PS retention scores were significantly higher than PO retention scores within the immediate retention task.

WEBSTER, ALEC; BAMFORD, JOHN M.; THYER, NICHOLAS J.; & AYLES, ROSEMARY. (1989, July). The psychological, educational, and auditory sequelae of early, persistent secretory otitis media. *Journal of Child Psychology and Psychiatry, 30,* 529-546.

Assesses the developmental effects of chronic secretory otitis media (CSOM) on learning difficulties as well as on delays in speech and language. CSOM is the generic term for a set of conditions frequently giving rise to middle ear conductive hearing loss in childhood. Subjects included 10 children without current hearing problems but with a history of recurrent early CSOM and 10 matched children with no history of the problem. Children were administered five educational/developmental tests including the WISC-R, the Nelson Primary Reading Test, the Domain Phonic Test, and the Schonell Spelling Test as well as two tests of auditory function. In general, measures of psychological, educational, and behavioral functioning showed no significant differences between CSOM and control children.

BANKS, JAMES; GRAY, COLIN; & FYFE, RONALD. (1990, June). The written recall of printed stories by severely deaf children. *British Journal of Educational Psychology, 60,* 192-206.

Compares the written recall of stories by a sample of 16 severely deaf children with that of 14 hearing children from remedial reading classes. Reading ages of the two groups were equivalent on the Young Group Reading Test. Subjects read and then were asked for a written recall of three stories. One week later, children were asked for a second written recall followed by a 20-deletion cloze version of each story. Written protocols were scored for amount of recall, number of distortions, and for information recalled in each of the story grammar categories of setting, problem, outcome, and ending. Deaf subjects recalled as much or more of story content as remedial readers. However, their recall contained more distortions of the type indicating a breakdown of the temporal structure of the story. The writing of one story in Sign word order resulted in better cloze recall by deaf children, but not in better free recall.

SIEDLECKI, JR., THEODORE; VOTAW, MARIANNE C.; BONVILLIAN, JOHN D.; & JORDAN, I. KING. (1990, June). The effects of manual interference and reading level on deaf subjects' recall of word lists. *Applied Psycholinguistics, 11,* 185-199.

Investigates the effect of a manual interference task on deaf and hearing college students' written free recall under both immediate and delayed-recall conditions. Subjects included 31 deaf undergraduates at Gallaudet University and 31 normal hearing undergraduates. Stimuli consisted of 192 English words in four categories: high-imagery/

signable, high-imagery/unsignable, low-imagery/signable, and low-imagery/unsignable. Words, divided into 16 lists of 12 each, were presented on a slide projector with two foam rubber balls used for the manual interference task. Lists were shown 1 word at a time with directions to squeeze the foam rubber balls with the right or left hand, both, or neither. At the end of each list, subjects put down the ball and were asked to recall as many words as they could. After all lists had been presented, there was a delayed recall in which subjects were asked to remember as many words as they could from all the lists. The manual interference task had a slight adverse effect on recall by deaf subjects, but this effect did not seem to be related to the use of a kinesthetic sign-based coding strategy. Deaf subjects' reading levels were related to their level of word recall; better deaf readers recalled more than 50% more words than did poorer deaf readers. Rating of speech intelligibility of deaf subjects was not related to level of word recall.

Gibbs, Katherine W. (1989, July). Individual differences in cognitive skills related to reading ability in the deaf. *American Annals of the Deaf, 134,* 214-218.

Examines individual differences in reading skills among the deaf. Subjects were 19 high school students enrolled in a school for the deaf, all prelingually and profoundly deaf. Subjects ranged in age from 16 to 19; their mean WISC score was 115.9. The GMRT, the SAT, the Cancel e's Test, and the Baker Metacognitive Measures were administered. Individual differences in reliance on phonological recoding showed no relation to reading skill. A correlation coefficient of .65 was found between reading ability and individual differences on the metacognitive measures.

Geers, Ann, & Moog, Jean. (1989, February/March). Factors predictive of the development of literacy in profoundly hearing-impaired adolescents. *Volta Review, 91,* 69-86.

Proposes to document literacy levels attained by a large sample of orally educated hearing-impaired adolescents at the end of their high school education and to determine the factors predictive of reading and writing competence. Subjects were 100 profoundly hearing-impaired 16- and 17-year-olds enrolled in oral and mainstream high school programs in the United States and Canada. A battery of tests was given to evaluate reading, writing, spoken and signed language, speech perception and production, and cognition. Reading tests administered included the GMRT, CAT, WRAT, PIAT, SAT, Test of Syntactic Abilities, a cloze task, and a narrative recall task. In addition, background and demographic data were collected from parents. Between 24% and 34% of students achieved reading skills commensurate with those of normal-hearing students. The primary factor associated with the development of literacy in this sample was oral English language ability, including vocabulary, syntax, and discourse skills.

VI-3 Mentally retarded

O'Sullivan, Patrick J.; Ysseldyke, James E.; Christenson, Sandra L.; & Thurlow, Martha L. (1990, Spring). Mildly handicapped elementary students' opportunity to learn during reading instruction in mainstream and special education settings. *Reading Research Quarterly, 25,* 131-146.

Observes reading instruction in both regular and special education settings in an investigation of the opportunity to learn provided mildly handicapped LD, emotionally/behaviorally disordered, and educable mentally retarded (EMR) elementary pupils. Subjects included 47 mildly handicapped (21 LD, 12 emotionally/behaviorally disordered, and 14 EMR) and 30 nonhandicapped children from 10 schools in two school districts. The nonhandicapped pupils were selected from the same classrooms as others and were identified as average pupils by their teachers. Each child was observed by a single observer for an entire school day, with observations completed between November and May of the school year. The observation system used was the Code for Instructional Structure and Student Academic Response, in which four events are coded each 10 seconds: the activity, the instructional task, the physical structure, and the student response. Only pupil response data observed during reading instruction were analyzed. On the average, slightly more than one hour daily was allocated to reading for all groups of pupils across all settings. An ANOVA indicated no statistically significant difference among groups on the total time allocated to reading instruction. Pupils were actively engaged and actively responding for significantly higher proportions of time in special education classes than in regular reading classes. Less time was spent overall in special education reading classes; the absolute time spent actively engaged and actively responding in special education classes was approximately the same in both types of classes. No differences were noted among the three handicapped groups in opportunity to learn. Overall, mildly handicapped pupils experienced significantly less opportunity to learn during mainstream reading instruction than their nonhandicapped peers. On the basis of their results, the authors concluded that placing mildly handicapped children in special education classes does not necessarily give them more opportunity to learn.

CAWLEY, JOHN F.; MILLER, JAMES H.; & CARR, SONYA C. (1990, May). An examination of the reading performance of students with mild educational handicaps or learning disabilities. *Journal of Learning Disabilities*, *23*, 284-290.

Assesses and compares the performance of LD students and students with mild educational handicaps (MEH) on a combination of norm-referenced and curriculum-based measures. Subjects, ages 12 to 15, included 38 with LD and 28 with MEH. In the latter group were special education students who were eligible for services under the labels mildly mentally retarded or slow learner. The norm referenced testing consisted of the Word Recognition and Reading Comprehension subtests of the PIAT; selected passages from the first- through sixth-grade levels of a science program were used to develop the curriculum-based measure. Passages varied in length depending on grade level of the material and each passage was accompanied by three factual recall and three inference questions. All children were administered the passages for grades 1 through 3; students were not given the higher level passages if there were three out of six incorrect comprehension questions on any two consecutive passages. Data collected included accuracy of word recognition, comprehension, and rate of reading. In general, there were no significant differences between groups on measures of word recognition, but there were significant differences favoring LD students in comprehension. Both groups attained higher levels of word recognition than comprehension on the PIAT; in science passages, comprehension scores at levels assigned by the PIAT tended to be at or below 50%. Only 7% of the MEH group and 34% of the LD group achieved the independent reading level, while only a relatively small number achieved instructional reading level.

RUDOLPH, CELIA; WOOD, THOMAS A.; MILLER-WOOD, DEBORAH J. (1990, Spring). Teaching basic sight words through nursery rhymes to mildly handicapped kindergarten students. *Reading Improvement*, *27*, 72-80.

Compares a language experience approach (LEA) alone to the LEA with use of nursery rhymes on the acquisition of basic sight words by mildly handicapped kindergarten children. Subjects were 19 children who ranged in age from 5-6 to 6-4 and were considered mildly handicapped on the basis of WPPSI and Vineland Social Maturity Scale testing. Pupils were enrolled in a self-contained kindergarten class for the educable mentally retarded. Test words were 12 preprimer Dolch words which were presented for instruction in two separate groups. Over a period of five weeks, Group 1 words were introduced with a LEA chart and reinforced in the context of a familiar nursery rhyme, while Group 2 words were introduced with only the LEA chart. In addition to the two instructional approaches, pupils encountered the words in other activities, including writing, spelling, and word matching. To determine treatment effects, pupils were pre- and posttested on the 12 words, and their performance on the two sets of words was analyzed using a t-test of group means. Results indicated that the children performed significantly better on words reinforced using nursery rhymes.

PEARLMAN, ILISSA. (1990, January). Effectiveness of keyword versus direct instruction on vocabulary acquisition by primary-grade handicapped learners. *Bulletin of the Psychonomic Society, 28,* 14-16.

Investigates the effectiveness of keyword (mnemonic) and direct instruction approaches on the vocabulary acquisition of handicapped learners in grades 4-6. Subjects were 16 pupils (8 male, 8 female) who were developmentally handicapped, LD, or mentally retarded, ages 124 to 167 months. Reported IQ scores (PPVT) for this sample ranged from 40 to 87 (mean = 67.13). The vocabulary terms were 14 survival-skills words suggested by the teacher as important and unfamiliar to the subjects. The list was divided into two sets of 7 words each and, for each word, picture cards were designed, which differentiated the instructional conditions. For the mnemonic condition, each card contained an interactive picture of the keyword and the meaning. For the direct instruction condition, each card contained a picture of the word's meaning. All pupils were assigned randomly to two groups and received instruction in the meaning of two sets of words using the two alternative approaches. Subjects were seen individually by the researcher who presented instruction and testing in approximately 16-minute periods for the direct instruction condition and 18 minutes for the keyword condition. Acquisition of vocabulary words was assessed by definition, sentence interpretation, and forced-choice questions. An examination of the means revealed that the subjects correctly defined more words when taught by the direct instruction than by the keyword method. There were no significant between-groups differences on the other two measures.

SENSENIG, LARRY D.; MAZEIKA, EDWARD J.; & TOPF, BRIDGET. (1989, June). Sign language facilitation of reading with students classified as trainable mentally-handicapped. *Education and Training in Mental Retardation, 24,* 121-125.

Conducts a study to determine whether the use of sign language facilitates reading in students classified as trainable mentally-handicapped (TMH). Subjects included eight males and seven females classified as TMH and ranging in age from 15 to 19 years and in IQ from 32 to 54. Subjects were assigned randomly to one of two across-subjects counterbalanced groups, Sign or Nonsign. Materials consisted of 36 survival words, each printed on a note card. For the first half of the study, the Sign group was taught to read words by presenting five flash cards one at a time to each subject who was asked to read the word aloud. The word was then pronounced, spelled, and signed and the subject was asked to imitate the verbal and/or sign response. Each word was shown five times. The Nonsign group was presented words in a similar manner except that there was no sign accompaniment. Learning criterion for both groups was the correct reading/signing of the word over three consecutive sessions. For the second half of the study, the groups were reversed. Six weeks after training had ended subjects were retested on words on which they had reached criterion. The Sign group identified significantly more words than did the Nonsign group. At the six-week follow up, they had retained more words than the Nonsign group.

MOLFESE, DENNIS L.; MORRIS, ROBIN D.; & ROMSKI, MARY ANN. (1990, January). Semantic discrimination in nonspeaking youngsters with moderate or severe retardation: Electrophysiological correlates. *Brain and Language, 38,* 61-74.

Applies auditory evoked response (AER) procedures to study word meaning in six symbol-experienced, nonspeaking males with moderate or severe mental retardation. Participants ranged in age from 13-8 to 22-5. None of the subjects produced intelligible words. Stimuli presented consisted of a 2000-Hz tone that was used to elicit the AERS and 10 lexigrams (visual-graphic symbols). AERS were recorded from electrodes placed on the scalp. As subjects viewed the lexigrams, a series of probe tones were presented to elicit the AERS. Half of the symbols were meaningful to the subjects. AER activity recorded from the left hemisphere frontal and temporal electrode sites discriminated between the meaningful and meaningless symbols. Analyses indicated that the wave-forms could be correctly classified in terms of the evoking stimulus with greater than 80% accuracy. It was concluded that findings supported the usefulness of AERS for studying the neurolinguistic processes underlying behavioral measures of language performance in difficult to assess populations.

Mizuko, Mark, & Reichle, Joe. (1989, November). Transparency and recall of symbols among intellectually handicapped adults. *Journal of Speech and Hearing Disorders, 54*, 627-633.

Investigates transparency and recall of referents represented by three different graphic symbol systems: Blissymbols, Picture Communication System (PCS), and Picsyms. Subjects were 21 intellectually handicapped adults, ranging in age from 22-4 to 61-7 and in PPVT age equivalent scores between 2 and 5 years. They were assigned randomly to one of the three symbol conditions; within each condition, they were administered one transparency task and three trials of a recall task. Three test booklets were prepared, each containing 45 items from one of the three symbol systems. Forty-five referents (15 each of nouns, verbs, and descriptors) were selected randomly for inclusion. The transparency task consisted of showing a stimulus page with four different symbols from the same system (Blissymbols, PCS, or Picsyms) and asking the subject to select the symbol that best matched the spoken label. Recall consisted of showing a stimulus plate with four different symbols from one of the conditions and asking the subject to select the graphic symbol that best matched the spoken label. Subjects correctly identified significantly fewer Blissymbols representing nouns than either PCS or Picsyms representing nouns. In early stages of recall for nouns, PCS and Picsyms were significantly easier to recall than Blissymbols. PCS and Picsyms were more transparent and easier to learn than Blissymbols.

Hoogeveen, Frans R.; Birkhoff, Annette E.; Smeets, Paul M.; Lancioni, Giulio E.; & Boelens, Harrie H. (1989, May/June). Establishing phonemic segmentation in moderately retarded children. *Remedial and Special Education, 10*(3), 47-53.

Assesses the ability of moderately retarded children to isolate final phonemes of spoken words, using two experiments. Both experiments included nine boys and seven girls, ranging in age from 6-3 to 19-5, from a school for moderately retarded children, selected on the basis of their inability to isolate final consonant phonemes. All subjects were nonreaders; the mean IQ for the sample was 51.9 (Stanford-Binet). Experiment 1 tested whether the failure to isolate final phonemes in consonant-vowel-consonant words (CVS) was due to the task requirements or to inadequate understanding of task demands. Training focused on establishing the subjects' familiarity with consonant phonemes and their understanding and control of the expressed final sound. Results revealed that establishing adequate instructional control had no effect on the subjects' performance; the isolation task required additional training. Experiment 2 assessed one procedure for teaching subjects to isolate final phonemes. This entailed the separate presentation of components with a gradual reduction of the pauses between the components (CV-C), a time-based stimulus manipulation procedure. Two training conditions were compared: one in which meaningful CVC words were used and one in which nonsense, nonmeaningful CVC words were used. Both conditions involved procedures to gradually decrease the pauses between verbal stimuli from 1.5 seconds to 0 seconds. The poststudy assessment consisted of 30 new, meaningful cvc words. Analysis of performance revealed that the training procedure was effective for all subjects. In addition, subjects who received training with real words performed better than subjects who received training with nonsense words.

VI-4 Neurologically impaired/brain damaged

Hough, Monica S. (1990, February). Narrative comprehension in adults with right and left hemisphere brain damage: Theme organization. *Brain and Language, 23*, 253-277.

Investigates the effects of delayed presentation of a central theme on the comprehension and interpretation of narratives both by normal adults and by adults with right and left hemisphere brain damage. A total of 30 adults participated. Ten subjects had right hemisphere brain damage, with 5 of these having posterior lesions limited to postrolandic regions and 5 having anterior lesions limited to prerolandic areas; 10 subjects had left hemisphere brain damage with 5 displaying fluent aphasia and 5 subjects, nonfluent aphasia; 10 adults were nonbrain-damaged controls. Materials consisted of 32 paragraphs, each accompanied by a drawing depicting the central theme of the narrative. On half of the paragraphs, subjects were to respond by verbally reporting the narrative main ideas; for the other half, subjects were to point to one of four words or phrases, presented graphically, in response to auditory questions about the paragraphs. For each subject, 16 paragraphs were presented with normal, expected central theme organization and 16 with a central theme presentation delayed until the end of the paragraph. Right hemisphere brain-damaged subjects with anterior and posterior lesions were less accurate and identified fewer central themes when central theme presentation was delayed until the end of a narrative than when the theme was presented at the beginning. Subjects with anterior right hemisphere brain damage produced significantly more embellishments and confabulations than subjects with posterior damage and nonbrain-damaged controls, regardless of theme condition. Performance of controls and subjects with fluent and nonfluent aphasia was unaffected by the organization of the central theme.

Sherman, Janet Cohen, & Schweickert, Janell. (1989, October). Syntactic and semantic contributions to sentence comprehension in agrammatism. *Brain and Language, 37*, 419-439.

Explores aspects of sentence comprehension in a group of agrammatic speakers. Subjects were five aphasic and eight normal adults; all aphasics demonstrated some level of agrammatic speech. Subjects were presented with sets of sentence-picture matching tasks, systematically varied in syntactic complexity, semantic reversibility, and plausibility. Tested were reversible and nonreversible active, passive, and center-embedded relative sentences, some of which were implausible, thereby requiring subjects to select a nonsensical picture. Sentences were read by the experimenter and subjects were asked to point to the picture that best matched the meaning of the sentence. Results revealed an almost perfect performance by normals whose performance was not affected by sentence type, reversibility, distractor type, or by task version. Aphasics were more often correct when the picture was paired with a lexical than with a syntactic distractor; their poorest performance was on center-embedded relative sentences paired with syntactic distractors. Aphasics correctly interpreted most active and passive sentences. Both syntactic and semantic information contributed to sentence comprehension in aphasics.

Hagiwara, Hiroko, & Caplan, David. (1990, January). Syntactic comprehension in Japanese aphasics: Effects of category and thematic role order. *Brain and*

Language, 38, 159-170.

Investigates syntactic comprehension disturbances in Japanese aphasics, focusing on the role of category order and thematic role order. Subjects were 30 Japanese aphasics who were administered 10 sentences each of 12 types. Varied were category order, thematic role order, and voice. Subjects were required to manipulate toy animals in such a way as to demonstrate the thematic roles of nouns in verbally presented sentences. The data indicated that the canonicity of thematic role order determined the ease of interpretation of different sentence types. It was felt that the finding suggested that language-specific factors, rather than language-universal factors, influenced the sentence comprehension mechanisms that are retained by aphasic patients.

Martin, Randi C., & Feher, Edward. (1990, January). The consequences of reduced memory span for the comprehension of semantic versus syntactic information. *Brain and Language, 38,* 1-20.

Assesses aphasic patients with restricted memory spans on their understanding of syntactically simple sentences varying in numbers of content words and on their understanding of sentences matched in content words but varying in syntactic complexity. Subjects were six adults, ages 55 to 67, who were aphasic as the result of left hemisphere cerebrovascular accidents; two were nonfluent and fit the classification of Broca's aphasic, while the fluent aphasic patients did not conform to any of the classical aphasic syndromes. A serial recall task was used as a measure of short term memory capacity, with words presented auditorily or visually at a prescribed rate. Subjects had to point to the items in memory sets of two, three, four, and five items in the correct serial order. Sentence comprehension tasks employed three presentation modes: unlimited visual, limited visual, and auditory. Words in token and in relative clause sentences appeared one at a time on a screen in the limited visual condition; in the unlimited condition, subjects saw the complete sentence printed on a card. Subjects thus saw or heard each sentence and attempted to carry out the command in the sentence. In sentences varying in number of content words, performance was poorer for the limited presentation modes than for the unlimited, and the difference between the two modes related to memory span. In sentences varying in syntactic complexity, there was no clear reduction in performance for limited presentation modes, and the difference scores did not relate to memory span. Findings supported the view that the processing of sentences with many content words draws upon the short term memory capacity assessed by memory span, while the processing of syntactic complexity does not.

Shapiro, Lewis P.; Zurif, Edgar; Carey, Susan; & Grossman, Murray. (1989, September). Comprehension of lexical subcategory distinctions by aphasic patients: Proper/common and mass/count nouns. *Journal of Speech and Hearing Research, 32,* 481-488.

Contrasts aphasic patients' sensitivity to the proper noun/common noun distinction with their sensitivity to the mass noun/count distinction. Subjects were 10 aphasic adults, classified as presenting either agrammatic Broca or fluent aphasia; age range was 51 to 67 years. The task required subjects to point to one of two pictures in response to a sentence containing a target noun with or without a preceding indefinite article. Two separate sets of 13 sentences each were prepared for each distinction (proper/common: mass/count) and each presentation mode (spoken/printed). It was found that the agrammatic Broca patients' performances on printed presentation of proper and common nouns was almost errorless. With spoken presentation, Broca aphasics performed significantly better on the proper/common distinction than on the mass/count distinction; for fluent aphasics, there was no significant difference between the two distinctions. Broca subjects' performance on proper nouns was poorer than their performance on common nouns, although the difference was not statistically significant; performance on mass nouns was significantly poorer than performance on count nouns. No reliable differences among noun types were found for fluent aphasics. The authors interpreted the results as suggesting that the proper noun/common noun is a universal semantic distinction, but that the mass noun/count noun distinction is purely syntactic and thereby is especially difficult for agrammatic Broca patients.

Shapiro, Lewis P., & Levine, Beth A. (1990, January). Verb processing during sentence comprehension in aphasia. *Brain and Language*, *38*, 21-47.

Describes two on-line sentence comprehension experiments investigating verb representations using 7 agrammatic Broca's aphasics, 6 fluent aphasics, and 10 normal controls as subjects. Materials consisted of 80 sentences featuring pure transitive verbs, obligatory three-place verbs, alternating dative, and nonalternating dative verbs. The only relevant differences among sentences were the verb types. There were two sets of sentences, with subjects required to do a complex secondary task both in the immediate vicinity of the verb and also in the vicinity of the preposition at a point well past the verb, while listening to the sentences for meaning. Reaction times to the secondary task indicated that both normal controls and agrammatic Broca's aphasic subjects activated multiple argument structure possibilities for a verb in the vicinity of the verb; however, at a distance from the verb, such effects disappear. It was felt that the results suggested that the problems agrammatic subjects show with verbs in sentence comprehension, and the general lexical access deficit said to be part of their problem, may not extend to the real-time processing of verbs and their arguments. Fluent aphasics did not show sensitivity to the argument structure properties of verbs, indicating that they may have a semantic-like sentence processing deficit.

Laine, Matti; Niemi, Pekka; Niemi, Jussi; & Koivuselka-Sallinen, Paivi. (1990, February). Semantic errors in a deep dyslexic. *Brain and Language*, *38*, 207-214.

Explores the origins of semantic paralexias (SP) in a case study of a Swedish speaking deep dyslexic whose SP appeared to result primarily from a lexical retrieval failure in oral reading. The patient was a 38-year-old, right-handed, highly literate male with a college level education who showed a left medial cerebral artery infarction affecting the perisylvian language areas. Language testing was conducted. The subject was able to draw correct pictures of the written words for which he had simultaneously produced a semantically erroneous oral reading response. He showed repeated attempts to correct paralexic responses, indicating that he recognized the errors. Lexical retrieval problems and semantic errors extended to naming as well. Results supported a dual-deficit model of deep dyslexia. It was felt that a phonological impairment was present in the patient, accounting for his inability to derive phonology from print nonlexically. Additionally, a lexical-semantic impairment was felt to account for his SPs and other reading errors, concreteness effects on oral reading, as well as for semantic errors on naming.

Chenery, Helen, J.; Ingram, John C.L.; & Murdoch, Bruce E. (1990, February). Automatic and volitional semantic processing in aphasia. *Brain and Language*, *38*, 215-232.

Compares performances in two experiments of aphasic and nonaphasic subjects on two tasks: an automatic semantic facilitation task and a volitional task of relatedness judgment. Four groups of 9 subjects were participants; 18 were aphasic patients who were divided into a group of 9 high comprehension and 9 low comprehension aphasics on the basis of performance on a modified version of the Token Test and on a picture-naming task. Controls consisted of 9 nonbrain-damaged volunteers and 9 brain-damaged individuals who exhibited no symptoms of aphasia and whose performance on the Token Test was consistent with standardized norms for nonaphasic brain-damaged subjects. Stimuli consisted of 16 picturable target words. In the semantic priming task, subjects listened to pairs of auditorily presented stimuli and were to decide whether the second word in a pair was a real or a nonsense word. The effects of three prime types were examined. The 16 target words were preceded by 8 superordinate and 8 functional associate related primes, and by 16 unrelated and 16 nonword primes; the 48 nonword targets were primed by 16 nonwords and 32 real words. The subject was shown a picture of the target and was to decide whether a word that was heard was or was not related to the pictured object. Reaction times and error scores were tabulated. Both aphasics and nonaphasics evidenced a semantic facilitation effort. However, aphasics with severe comprehension and naming disturbances showed marked difficulty in judging the relatedness between a pictured object and members of that object's semantic field.

Li, Edith Chin, & Williams, Sarah E. (1990, January). The effects of grammatic class and cue type on cueing responsiveness in aphasia. *Brain and Language, 38*, 48-60.

Investigates the effects on cueing responsiveness of two types of cues, semantic and phonemic, and two grammatic classes, noun and verb. Subjects were 36 aphasic patients: 10 Broca's, 10 Wernicke's, 8 conduction, and 8 anomic aphasics. Etiology of aphasia was a single, thromboembolic left hemisphere cerebrovascular accident for all subjects. Stimulus materials were black and white line drawings, half depicting objects and half depicting actions. Four confrontation naming tests were constructed, each consisting of 28 high-frequency words and 14 low-frequency words. Tests consisted of noun targets associated with semantic cues, noun targets associated with phonemic cues, verb targets associated with semantic cues, and verb targets associated with phonemic cues. Subjects were shown the pictures and given a five-second period to respond to the name or the action. Cues were administered following failure to name on confrontation. Responsiveness to the two types of cues was dependent on aphasic type and grammatic class. Statistical analyses revealed that Broca's and conduction aphasics responded significantly better to phonemic than to semantic cues; anomic aphasics showed the reverse effect. While Wernicke's aphasics demonstrated a slight preference for phonemic cueing, the effect was not statistically significant. Anomic aphasics showed an improvement in the use of semantic as compared with phonemic cues during the naming of verbs; the other groups did better with phonemic cueing in the verb situation, although they benefited less from phonemic cues in naming verbs as compared with nouns.

Soma, Yoshiaki; Sugishita, Morihiro; Kitamura, Koichi; Maruyama, Shoichi; & Imanaga, Hirohisa. (1989, December). Lexical agraphia in the Japanese language. *Brain, 112*, 1549-1561.

Reports three cases with left posteroinferior temporal lesions who presented pure agraphia almost exclusively for Kanji, the Japanese writing system that conveys both phonetic and semantic values simultaneously and corresponds linguistically to morphemes in words. Kana symbols, on the other hand, are less complex than Kanji and convey an exclusively phonetic value. Kana letters correspond to a consonant-vowel syllable. The three patients included a 71-year-old executive, a 58-year-old housewife, and a 36-year-old engineer. All three exhibited anomia and alexia with agraphia. Detailed examinations of reading and writing were administered along with a neurological examination. Alexia for both Kanji and Kana, as well as agraphia for Kana, disappeared in a relatively short time, but agraphia for Kanji remained. Recall of letter forms was more difficult in Kanji, especially characters having more complex configurations. It was concluded that lexical agraphia can be observed in the Japanese language where it is termed "pure agraphia for Kanji."

Wambaugh, Julie L., & Thompson, Cynthia K. (1989, November). Training and generalization of agrammatic aphasic adults' *Wh*-interrogative productions. *Journal of Speech and Hearing Disorders, 54*, 509-525.

Examines response generalization within and across *wh*-interrogative forms and constructions and assesses stimulus generalization effects in four agrammatic Broca's aphasic subject. Subjects were aphasic adults who ranged between 54 and 65 years of age. All had Broca's aphasia based on performance on the Western Aphasia Battery. Stimuli consisted of 40 story completion items to elicit *what* and *where* questions. Each item consisted of two complete and one incomplete statements. A combined multiple baseline design across behaviors, subjects, and settings was used in assessing treatment effects. Training sessions were provided, followed by the treatment. Assessed throughout treatment were response generalization to untrained questions and stimulus generalization to several nontraining conditions. Story completion probes were conducted 2 and 10 weeks following the end of treatment. Variable response generalization to untrained examplars of trained *wh*-interrogative forms and little generalization to grammatically different *wh* constructions were found. Stimulus generalization to only one of three conditions was noted. Generalization treatment involving sequential modification of training across conditions was found to be effective in facilitating generalization to an additional stimulus condition for two of the subjects.

Friedman, Rhonda B., & Kohn, Susan E. (1990, February). Impaired activation of the phonological lexicon: Effects upon oral reading. *Brain and Language, 38*, 278-297.

Examines the role of the phonological lexicon in the oral reading of a patient with a small focal left hemisphere lesion. The subject was a 52-year-old right-handed attorney who suffered a left cerebrovascular accident subsequent to a myocardial infarction. A language examination one year postonset indicated that he had moderate word-finding difficulties, and he produced phonemic paraphasias which were frequently self-corrected. Repetition and naming were poor; writing and oral reading were impaired, but reading comprehension was good on the Boston Diagnostic Aphasia Exam. At three years postonset, his aphasia profile remained relatively unchanged with the exception of some improvement in word-finding ability. A series of tests were administered which involved accessing the phonological lexicon from different input routes. Two competing models of reading were tested: a nonlexical (rules) model and a lexical (no-rules) model. Findings suggested that the patient's reading was most similar to phonological alexia, thereby providing support for the no-rules mode.

Seymour, Philip H.K.; & Evans, Henryka M. (1988, September). Developmental arrest at the logographic stage: Impaired literacy functions in Klinefelter's XXXY syndrome. *Journal of Research in Reading, 11*, 133-151.

Analyzes the reading and spelling processes in a case study of a boy diagnosed as having a variant of Klinefelter's XXXY syndrome. Educational assessments were conducted over a four-year period. The subject had a full scale WISC-R IQ of 56. The subject was presented isolated words or nonwords on a computer screen to read and given words from the same lists to spell. He had low success for reading and spelling of nonwords; he read 40% of the words presented and spelled about 13%. His accuracy was greater for higher frequency than for lower frequency words. No consistent effects were noted for comparisons between words of varying regularity, functors and content words, or abstract and concrete words. It was concluded that the subject's word recognition was based on a logographic lexicon, with the key features being the predominance of visually similar word responses, the absence of length effects, and the occurrence of some semantic effects.

SULLIVAN, E.V.; & SAGAR, H.J. (1989, December). Nonverbal recognition and recency discrimination deficits in Parkinson's disease and Alzheimer's disease. *Brain, 112,* 1503-1517.

Examines recency discrimination and recognition memory for nonverbal material in 14 patients with Parkinson's disease (PD), 15 patients with Alzheimer's disease (AD), and 15 normal control subjects. Subjects were shown a series of abstract wallpaper designs at a controlled rate. At random intervals they were asked to identify which one of a previously presented design and foil had been seen. In addition, two previously presented designs were to be identified in terms of recency of appearance. Results indicated that the retention functions for the recognition of verbal and nonverbal material differed qualitatively in all three groups. For verbal and nonverbal recency discrimination and verbal content recognition, performance declined with increasing retention levels; for nonverbal content recognition, performance tended to be unchanging across retention intervals. Recency discrimination on the nonverbal test was impaired in both patient groups. As opposed to findings on the verbal task, both groups were impaired on content recognition. Patterns of impairment differed between the two patient groups; performance of the AD group was impaired at the longest retention intervals but not at the shortest intervals, while performance of the PD group was impaired at the shortest but not at the longest intervals. It was concluded that deficits in recency discrimination and short term memory processing in PD extend to both verbal and nonverbal material and implied bilateral frontal lobe dysfunction in the genesis of these deficits.

KATZ, ROBERT B., & SEVUSH, STEVEN. (1989, August). Positional dyslexia. *Brain and Language, 37,* 266-289.

Describes case studies of two patients with left-hemisphere lesions whose positional reading difficulty could not be attributed to either neglect or extinction. In both patients, reading errors occurred at the beginnings of words. Both patients were males in their 60s. The reading subtest of the WRAT was administered as well as a battery of four lists of words: regularly and irregularly spelled words, visually confusable words, short and long words of high and low frequency, and pseudowords. On all lists, large numbers of errors were made on the beginnings of words. One patient was available for additional testing, and he was assessed for his ability to name letters and numbers and to read words under various conditions. The patient had difficulty reading the beginning of words presented tachistoscopically or in vertical orientation. The positional difficulty was apparent when he identified the letters in words. It was concluded that the pattern indicates that the positional dyslexia in these patients was not likely attributable to general deficits in visual perception or attention but possibly reflected a disorder at a later stage of letter processing.

VI-5 Other atypical learners

LEVY, FLORENCE, & HOBBES, GARRY. (1989, June). Reading, spelling, and vigilance in attention deficit and conduct disorder. *Journal of Abnormal Child Psychology, 17,* 291-298.

Attempts an analysis of the problems of children with attention deficit disorder with hyperactivity (ADDH) and conduct disorder (CD) by examining psychometric, vigilance, reading, and spelling abilities in relation to diagnosis and treatment. Subjects included 51 boys, ranging in age from 6 to 12 years, referred to a clinic in Sydney, Australia, for behavior and concentration problems. The following instruments were administered: WISC-R, Continuous Performance Test, Draw-a-Line Slow test, and a modified Boder and Jarrico Test of Reading and Spelling Ability. The Boder was used to obtain scores for RA, number of syllables read correctly in the word list at the appropriate reading level, and number of phonetically correct syllables spelled in the word lists at and just above the child's reading level. Factor analysis procedures were used in treating the data and revealed two significant factors: a Reading factor with high loadings for verbal and reading scores and a Vigilance factor. The latter was significantly related to the diagnosis of ADDH.

PAVCHINSKI, PETER; EVANS, JOSEPH H.,; & BOSTOW, DARREL E. (1989, October). Increasing word recognition and math ability in a severely learning-disabled student with token reinforcers. *Psychology in the Schools, 26*, 397-411.

Details an experiment conducted to remediate the math and reading skills of one severely LD boy by using token reinforcers. The subject was a 12-year-old fourth grader with a WISC-R IQ of 86. He had been diagnosed as having severe specific learning disabilities in both reading and math and received LD services on a part-time basis. A psychiatric evaluation had labeled him emotionally disturbed with specific behavioral problems. He was in residential treatment in a family-style group home for emotionally and behaviorally disturbed youth. For the purpose of this study, token reinforcers were presented for correct responses to a structured set of math problems and sight words. The 220 Dolch basic sight words were the target terms presented in isolation on word cards. A total of 55 Dolch words were presented in each session in addition to 55 arithmetic problems. The 40-minute sessions occurred four times per week for a total of 20 weeks. During each session, the subject wrote words he recognized once in his notebook and wrote unknown words three times after they were pronounced by the examiner. Each set of 55 words was delivered 20 times for a total of 80 sessions. The subject reached a 90% correct response rate following implementation of a changing criterion experimental design. This represented substantial improvement over his baseline performance of 34% correct. Delayed, follow-up assessments revealed that his average retention of the Dolch words was 98.6%.

ACKERMAN, PEGGY T.; DYKMAN, ROSCOE A.; AND GARDNER, MICHELLE Y. (1990, May). ADD students with and without dyslexia in sensitivity to rhyme and alliteration. *Journal of Learning Disabilities, 23*, 279-283.

Administers the Bradley 24-item test of phonological sensitivity to three groups of children and compares scores. The Bradley test is divided into three sections of eight trials each, with each section assessing a different rhyming condition. Condition 1 had a last sound different; Condition 2, a middle sound different; and Condition 3, a first sound different. Participants were 52 nonproblem elementary school pupils and 177 children identified as having attention deficit disorder (ADD). In the ADD group, 82 met the criteria for dyslexia and 83 were normally reading. Children made more errors in Conditions 2 and 3 than in Condition 1. The dyslexic ADD group made more errors than the other two groups, and the normal reading ADD children had higher error scores than controls. Three major subgroups were identified in the ADD sample on the basis of phonological sensitivity: 38 who were both dyslexic and phonologically impaired, 44 who were dyslexic but phonologically sensitive, and 79 who were neither dyslexic nor phonologically impaired. Dyslexics who were phonologically sensitive had higher scores on the WISC-R Spatial factor than did dyslexics who were phonologically insensitive. Phonological sensitivity scores made an additional contribution to the prediction of WRAT reading and spelling scores beyond WISC-R Verbal, Spatial, and Sequential Memory factor scores.

Journals Monitored
Annual Summary of Investigations Relating to Reading
July 1, 1989 to June 30, 1990

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Adolescence
Adult Education (British NIAE)
Adult Education Quarterly
Alberta Journal of Educational Research
American Annals of the Deaf
American Cartographer
American Educational Research Journal
American Journal of Community Psychology
American Journal of Education
American Journal of Mental Retardation
American Journal of Orthopsychiatry
American Journal of Psychology
American Journal of Sociology
American Quarterly
American Sociological Review
Applied Psycholinguistics
Archives of Neurology
Arithmetic Teacher
Arizona Reading Journal
Australia & New Zealand Journal of
  Developmental Disabilities
Australian Journal of Education
Australian Journal of Psychology
Australian Journal of Reading
Australian Library Journal
Book Research Quarterly
Brain: A Journal of Neurology
Brain & Cognition
Brain & Language
British Journal of Disorders of Communication
British Journal of Educational Psychology
British Journal of Educational Studies
British Journal of Educational Technology
British Journal of Psychology
British Journal of Sociology of Education
British Journal of Special Education
Bulletin of the Psychonomic Society
California Reader
Canadian and International Education
Canadian Journal of Psychology
Canadian Library Journal
Canadian Modern Language Review
Canadian Psychology
Cartographic Journal
Child Care: Health & Development
Child Development
Child Psychiatry and Human Development
Childhood Education
Children's Literature in Education
Clearing House, The
Cognition and Instruction
Cognition International
Cognitive Neuropsychology
Cognitive Psychology
Cognitive Science
College and Research Libraries
College Student Journal
Communication and Cognition
Communication Education
Communication Monographs
Communication Quarterly
Communication Research
Communications A.C.M.
Community Junior College
Comparative Education Review
Computers & Education
Computing Teacher
Contemporary Education
Contemporary Educational Psychology
Contemporary Issues in Reading
Contemporary Psychology
Cortex
CSIL: Current Studies in Librarianship
Curriculum Inquiry
Developmental Medicine and Child Neurology
Developmental Psychology
Discourse Processes
Early Childhood Research Quarterly
Education
Education and Society
Education and Training in Mental Retardation
Education Digest
Education for Information
Education Libraries Journal
Education, U.S.A.
Educational and Psychological Measurement
Educational Forum
Educational Gerontology: An International
  Quarterly
Educational Horizons
Educational Leadership
Educational Psychologist
Educational Psychology
Educational Research
Educational Research Quarterly
Educational Researcher
Educational Review
Educational Studies

Educational Technology
Educational Technology Research and Development
Elementary School Journal
ELT Journal
English Education
English for Specific Purposes
English in Australia
English in Education
English Journal
English Quarterly
ETS Developments
Exceptional Children
Florida Reading Quarterly
Foreign Language Annals
Forum
Forum for Reading
Gazette: International Journal for Mass Communications Studies
Georgia Journal of Reading
Gifted Child Quarterly
Harvard Educational Review
High School Journal
Higher Education-Amsterdam
History of Education
History of Education Quarterly
Human Development
Human Factors
Idaho Reading Report
Illinois Reading Council Journal
Imagination, Cognition, & Personality
Indian Educational Review
Indiana Reading Quarterly
Instructional Science
Interchange
International Journal of Disability, Development, & Education
International Journal of Educational Research
International Library Review
International Research in Reading
International Review of Education
Interracial Books for Children
Irish Journal of Education
Journal for Affective Reading Education
Journalism Monographs
Journalism Quarterly
Journal of Abnormal Child Psychology
Journal of the Acoustical Society of America
Journal of Advertising
Journal of Advertising Research
Journal of Aesthetic Education
Journal of American Optometric Association
Journal of Applied Behavior Analysis
Journal of Applied Behavioral Science
Journal of Applied Developmental Psychology
Journal of the Association for the Study of Perception
Journal of Child Psychology and Psychiatry
Journal of Clinical Psychology
Journal of College Reading & Learning
Journal of Communication
Journal of Communication Disorders
Journal of Counseling Psychology
Journal of Curriculum Studies
Journal of Education
Journal of Educational Computing Research
Journal of Educational Measurement
Journal of Educational Psychology (USA)
Journal of Educational Psychology (W. Germany)
Journal of Educational Research
Journal of Experimental Child Psychology
Journal of Experimental Education
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory, and Cognition
Journal of General Psychology
Journal of Genetic Psychology
Journal of Learning Disabilities
Journal of Marketing
Journal of Marketing Research
Journal of Memory and Language
Journal of Mental Imagery
Journal of Multilingual and Multicultural Development
Journal of Negro Education
Journal of Psychoeducational Assessment
Journal of Reading
Journal of Reading Behavior
Journal of Reading Education
Journal of Reading, Writing, and Learning Disabilities International
Journal of Research and Development in Education
Journal of Research in Personality
Journal of Research in Reading
Journal of Research in Science Teaching
Journal of Research on Computing in Education
Journal of School Psychology
Journal of Special Education
Journal of Speech and Hearing Disorders
Journal of Speech and Hearing Research
Journal of Visual Impairment and Blindness
Journal of Vocational Behavior
Kansas Journal of Reading
Kappa Delta Pi Record
Kentucky Reading Journal
Language and Speech
Language Arts
Language in Society
Language Learning
Learning Disabilities Focus

Learning Disabilities Quarterly
Learning Disabilities Research
Library and Information Science Research
Library Association Journal
Library Journal
Library Quarterly
Library Resources and Technical Services
Library Review
Library Trends
Lifelong Learning
Lifelong Trends
Linguistic Inquiry
Linguistics: An Interdisciplinary Journal of the Language Sciences
Mass Communication Review
Massachusetts Primer
Measurement and Evaluation in Counseling and Development
Media and Methods
Memory and Cognition
Merrill-Palmer Quarterly
Michigan Reading Journal
Minnesota Reading Association Highlights
Mississippi Reading Journal
Missouri Reader
Modern Language Journal
Monographs in Language and Reading Studies
Monographs of the Society for Research in Child Development
Montana Reading Journal
National Association for Secondary School Principals Bulletin
Neuropsychologia
New England Reading Association Journal
New Mexico Journal of Reading
New Zealand Journal of Education Studies
News Research Report
Newspaper Research Journal
Ohio Reading Teacher
Oklahoma Reader, The
Optometry & Vision Science
Peabody Journal of Education
Pediatrics
Perception and Psychophysics
Perceptual and Motor Skills
Perspectives
Perspectives for Teachers of the Hearing Impaired
Phi Delta Kappan
Poetics
Poetics Today
Professional Psychology: Research and Practice
Programmed Learning and Educational Technology
Prospects: Quarterly Review of Education
Psychological Medicine
Psychological Record
Psychological Review
Psychology
Psychology in the Schools
Psychophysiology
Public Opinion Quarterly
Quarterly Journal of Experimental Psychology
Reading
Reading: Exploration & Discovery
Reading Horizons
Reading Improvement
Reading in a Foreign Language
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Reading in Virginia
Reading Professor, The
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Reflections on Canadian Literacy
RELC Journal
Remedial and Special Education
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Research in Education
Research in the Teaching of English
Research Papers in Education
Review of Education, The
Review of Educational Research
Rhode Island Reading Review
Roeper Review
Scandinavian Journal of Educational Research
Scandinavian Public Library Quarterly
Scholarly Publishing
School Counselor
School Library Journal
School Library Media Quarterly
School Psychology International
School Psychology Review
School Science & Mathematics
Science Education
Science of Reading
Scottish Educational Review
Sex Roles
Social Education
Sociology of Education
Spelling Progress Quarterly
Studies in Art Education
Studies in Educational Evaluation
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Teaching English to Deaf and Second Language Students
Teaching Exceptional Children
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Tennessee Reading Teacher

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Topics in Language Disorders
Urban Education
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Vision Research
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Australian Reading Association Conference Proceedings
Claremont Reading Conference Yearbook
Literacy and Language in Asia Yearbook
National Reading Conference Yearbook
Proceedings of the Annual Conference of the Reading Association of Ireland
Proceedings of the Research Study Symposium (FRA)
Reading Education in Texas: A Yearbook of the Texas State Reading Association
Reading Research: Advances in Theory and Practice
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